Career Cluster Resources
for Education and Training

www.careerclusters.org

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Introduction

The States' Career Cluster Initiative
9/01/02

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The U.S. Department of Education Office of Vocational and Adult Education (OVAE) has identified 16 career clusters representing career opportunities for the 21st century economy. These clusters will frame student opportunities as they pursue postsecondary education and a wide range of career opportunities from front-line to professional and managerial careers.

Helping students make their dreams become a reality was the driving force behind the nation's Career Clusters initiative launched June 1, 2001. Twelve lead states and the District of Columbia were partners in the development of the tools supporting eleven career clusters which, when combined with the five clusters that have already been developed, will represent all career possibilities.

The National Association of State Directors for Career and Technical Education Consortium (NASDCTEc) and their Board of Directors assumed leadership for coordinating the project. This in itself was unique for a project of this scope. The Board and the State Directors organization believed that this initiative was of such potential impact on the Career Technical delivery system in the country that they needed to play this leadership role in the project, assuring that the materials had utility in their states once completed. Therefore, the NASDCTEc in conjunction with the State of Oklahoma (the project fiscal agent) prepared and submitted a proposal to OVAE in January of 2001. This proposal was funded at a $2.2 million dollar level, with expectations of a second year of funding of $2.5 million. The plan to develop eleven curriculum frameworks was very aggressive, given that each of the prior projects, designed to develop and pilot test materials for a single cluster, had received in excess of $1 million dollars for their multiyear development work.

The project was designed to establish curriculum frameworks and supportive materials for each cluster, with a broad-based advisory committee for each cluster, led by a state. There was also a National Advisory Committee consisting of members from each of the cluster committees, along with other stakeholders. The National and State Cluster advisory committees were responsible for identifying the frameworks, pathway and foundation knowledge and skills, and other supportive

materials. The committees included representatives from states, schools, education and training, business and industry, associations, and others directly impacted by the materials.

The development of materials for each of the eleven clusters was led by a different state, with business and industry at the helm. The lead states included: Idaho and Iowa (jointly leading the Agriculture, Food and Natural Resources cluster), Pennsylvania (Architecture and Construction), Ohio (Marketing, Sales and Service), North Dakota (Finance), West Virginia (Hospitality and Tourism), South Carolina (Business, Management and Administration), Kentucky (Human Services), Arkansas (Law, Public Safety and Security), North Carolina (Science, Technology, Engineering and Mathematics), Michigan (Education and Training), and Oklahoma and the District of Columbia/Washington D.C. (jointly leading the Government and Public Administration cluster).

The five additional career clusters included Health Science led by the State of Utah, Manufacturing led by the State of Indiana, Arts, Audio Video Technology and Communications led by the V-TECS Consortium, Information Technology led by the Educational Development Center, Inc., and Transportation, Distribution and Logistics Cluster led by the State of Illinois. These clusters plan to complete their work by June 30 of 2003.

To facilitate and coordinate the developmental work of the Cluster Initiative, staff was identified and housed at the Oklahoma Department of Career and Technical Education. The staff consisted of four Cluster Coordinators: Marsha Daves, Greg Dewald, Curtis Shumaker, and Pam Stacey. Additionally, Denise Christy provided research and web development support, Lisa Batchelder provided financial support, and Karan Smith provided administrative support.

Development work for the States' Career Clusters Initiative began June 1, 2001, and the first meeting of lead states, OVAE staff, and cluster staff was held in Oklahoma City in mid-June. At this meeting, project objectives, general direction, timelines, and the initial research goals were identified. This work continued through the fall and winter of 2001 and included the identification of cluster advisory committee members, the development of cluster frameworks based on the prototype cluster models provided by V-TECS, and the identification of occupations and draft pathways along with degrees and certificates associated with the career specialties/occupations in each of the clusters.

In January of 2002, the lead state teams were brought together in Phoenix to begin the process of developing knowledge and skill statements for each of the cluster pathways and foundations. Contracted writers and lead state cluster advisory committee members, depending upon

the decisions of cluster leadership, carried out this work. A part-time editor in Oklahoma provided consistency across the cluster knowledge and skill statements. One concern that was addressed early in the process was the need for a "common look and feel" across the clusters. Ultimately, this was accomplished not only for the eleven clusters in the States' Career Clusters Initiative, but also through close cooperative relationships between the projects, all the cluster knowledge and skill statements were developed (or retro-fitted) using the same format. This format includes a knowledge/skill statement with associated performance elements and measurement criteria. This format provides the tools needed for curriculum and assessment developers as they take the materials to the classroom.

The National Advisory Committee met in March of 2002, and reviewed the curriculum frameworks, credentials list, and lead state advisory committee memberships and structures, and forwarded those materials to the Executive Committee for the Project. The Executive Committee, made up of the Board of the NASDCTEc, also met in March, approved the materials and discussed the future actions needed to assure implementation of the cluster materials.

Originally, the project was designed for a minimum of two years and was to include the identification of 110 pilot test sites across the country, along with the development of assessments and certifications for the clusters. The Office of Vocational and Adult Education, however, determined in November of 2001 that the goals of the project were "too broad", and terminated the project as of September 30, 2002.

Development of the products needed for curriculum and assessment was fast-tracked, with the knowledge and skill statements, performance elements and measurement criteria ready for validation by July 15, 2002. This was the result of a major effort of lead state advisory committees and staff responding to the shortened timeline and the need for quality product.

Given the efforts of the developmental teams, cluster advisory committee members were able to review and validate the knowledge and skills and supporting elements. Additionally, a national web-based validation was conducted from July 15 to August 15, 2002. All 50 states were invited to a dissemination meeting held in Charleston, South Carolina Sept 13, 2002, where the materials were distributed to participants for their use in updating their curriculum.

For further information on the status of the materials, go to the web-site, http://www.careerclusters.org/.
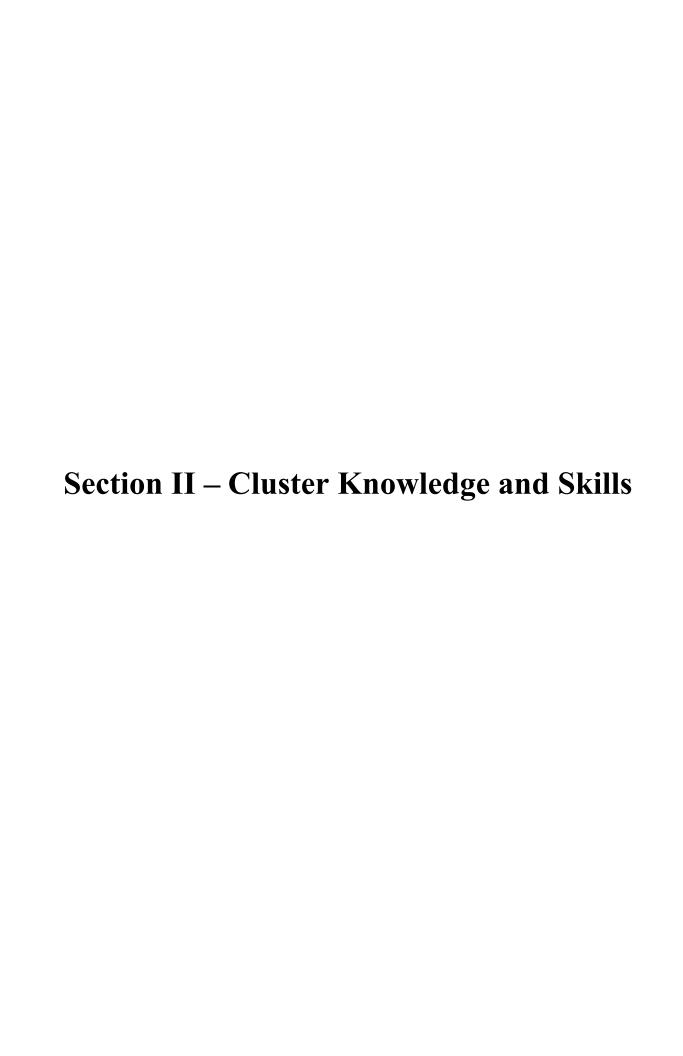
Section I – Pathway Model

Planning, managing and providing education and training services, and related learning support services.

Sample Career Specialties / Occupations	•Superintendents, Principals, Administrators •Supervisors and Instructional Coordinators •Education Researchers, Test Measurement Specialists •College Presidents, Deans •Curriculum Developers •Instructional Media Designers	•Psychologists- Clinical, Developmental, Social •Social Workers •Parent Educators •Counselors •Speech-Language Pathologists and Audiologists	•Preschool, Kindergarten Teachers, Aids •Elementary Teachers, Aids •Secondary Teachers, Aids •Special Education Teachers, Aids •College/University Lecturers, Professors Human Resource Trainers Physical Trainers Coaches •Child Care Directors •Child Care Workers •Child Life Specialist •Nanny •Early Childhood Teachers and Assistants •Teacher Aids •Group Workers and Assistants
Pathways	**Administration and Administrative Support**	**Professional Support Services**	**Teaching/Training**
Cluster K&S	**Cluster knowledge and skills** ♦ Academic Foundations ♦ Communications ♦ Problem Solving and Critical Thinking ♦ Information Technology Applications ♦ Systems ♦ Safety, Health and Environmental ♦ Leadership and Teamwork ♦ Ethics and Legal Responsibilities ♦ Employability and Career Development ♦ Technical Skills		

Section II – Cluster Knowledge and Skills

Cluster Knowledge and Skill Statement

Academic Foundations

Statement: Apply fundamental knowledge of psychology to enhance learner achievement.

Performance Element: Employ fundamental knowledge of developmental theory to enhance learner achievement.

Measurement Criteria: *Identify major theorists.*

Measurement Criteria: *Explain major theories using real-world examples.*

Measurement Criteria: *Critique major theories.*

Measurement Criteria: *Use theory to predict and explain individual and group behavior.*

Performance Element: Employ fundamental knowledge of learning theory to enhance learner achievement.

Measurement Criteria: *Identify major theorists.*

Measurement Criteria: *Explain major theories using real-world examples.*

Measurement Criteria: *Critique major theories.*

Measurement Criteria: *Use theory to predict and explain individual and group behavior.*

Performance Element: Employ fundamental knowledge of motivation theory to enhance learner achievement.

Measurement Criteria: *Identify major theorists.*

Measurement Criteria: *Explain major theories using real-world examples.*

Measurement Criteria: *Critique major theories.*

Measurement Criteria: *Use theory to predict and explain individual and group behavior.*

Performance Element: Employ fundamental knowledge of the dynamics of psychological change to enhance professional practice.

Measurement Criteria: *Identify major theorists.*

Measurement Criteria: *Explain major theories using real-world examples.*

Measurement Criteria: *Critique major theories.*

Measurement Criteria: *Use theory to predict and explain individual and group behavior.*

Statement: Apply fundamental knowledge of sociology to enhance learner achievement.

Performance Element: Employ fundamental knowledge of the social interaction of individuals and institutions to enhance learner achievement.

Measurement Criteria: *Identify multiple social factors and institutions that impact learning.*

Measurement Criteria: *Explain factors using real-world examples.*

Measurement Criteria: *Use social interaction of individuals and institutions to predict and explain individual and group behavior.*

Performance Element: Analyze social barriers to learning.

Measurement Criteria: *Identify multiple barriers.*

Measurement Criteria: *Explain barriers using real-world examples.*

Measurement Criteria: *Propose solutions to barriers.*

Performance Element: Employ fundamental knowledge of the dynamics of sociological change to enhance professional practice.

Measurement Criteria: *Identify major theorists.*

Measurement Criteria: *Explain major theories using real-world examples.*

Measurement Criteria: *Critique major theories.*

Measurement Criteria: *Use theory to predict and explain individual and group behavior.*

Cluster Knowledge and Skill Statement

Statement: Apply fundamental knowledge of cultural, ethnic, and racial groups to enhance learner achievement.

Performance Element: Explain the history of multiple cultural, ethnic, and racial groups as it relates to learning.

Measurement Criteria: *Explain history that relates to learning settings and institutions.*

Measurement Criteria: *Explain history that relates to family and community.*

Measurement Criteria: *Explain history that relates to work.*

Performance Element: Explain multiple cultural, ethnic, and racial groups' belief systems that relate to learning.

Measurement Criteria: *Explain achievement belief systems.*

Measurement Criteria: *Explain life goals belief systems.*

Statement: Apply fundamental knowledge of the relationships between education and society to enhance learner achievement.

Performance Element: Apply fundamental knowledge of economics to enhance learner achievement.

Measurement Criteria: *Identify major economic factors affecting learning and educational practice.*

Measurement Criteria: *Explain factors using real world examples.*

Measurement Criteria: *Relate factors to local funding issues.*

Performance Element: Employ fundamental knowledge of educational philosophies to enhance learner achievement.

Measurement Criteria: *Identify major philosophers.*

Measurement Criteria: *Explain major philosophies using real-world examples.*

Measurement Criteria: *Critique major philosophies.*

Measurement Criteria: *Relate educational philosophies to contemporary issues in professional practice.*

Performance Element: Analyze structures for governing professional practices in learning settings.

Measurement Criteria: *Identify multiple governance structures.*

Measurement Criteria: *Explain governance structures using real-world examples.*

Measurement Criteria: *Critique governance structures.*

Measurement Criteria: *Relate governance structures to contemporary issues in professional practice.*

Statement: Apply fundamental knowledge of instructional strategies to enhance learner achievement.

Performance Element: Explain models of instruction.

Measurement Criteria: *Explain various models.*

Measurement Criteria: *Explain optimal contexts for using models.*

Performance Element: Employ models of instruction to enhance learner achievement.

Measurement Criteria: *Use various models.*

Measurement Criteria: *Explain appropriateness of models in terms of context and learner results.*

Statement: Apply fundamental knowledge and skills of assessment to enhance learner achievement.

Performance Element: Employ fundamental knowledge of measurement to enhance

Cluster Knowledge and Skill Statement

learner achievement.

Measurement Criteria: *Explain concepts of measurement.*

Measurement Criteria: *Measure educational outcomes appropriately.*

Measurement Criteria: *Interpret measurements appropriately.*

Performance Element: Employ fundamental knowledge of non-numeric data to enhance learner achievement.

Measurement Criteria: *Explain concepts of non-numeric data.*

Measurement Criteria: *Collect non-numeric data appropriately.*

Measurement Criteria: *Interpret non-numeric data appropriately.*

Statement: Apply fundamental knowledge of economics to enhance learner achievement.

Performance Element: Employ fundamental knowledge of macroeconomics to enhance funding for professional practices in learning settings.

Measurement Criteria: *Identify major macroeconomic factors.*

Measurement Criteria: *Explain factors using real-world examples.*

Measurement Criteria: *Relate factors to contemporary funding issues.*

Performance Element: Employ fundamental knowledge of microeconomics to enhance funding for professional practices in learning settings.

Measurement Criteria: *Identify major microeconomic factors.*

Measurement Criteria: *Explain factors using real-world examples.*

Measurement Criteria: *Relate factors to local funding issues.*

Cluster Knowledge and Skill Statement

Communications

Statement: Apply verbal communication skills to enhance learning and stakeholder commitment to learning organization.

Performance Element: Use motivational and engaging communication to provide information.

Measurement Criteria: *Cite data.*

Measurement Criteria: *Explain relevance to audience and context.*

Measurement Criteria: *Explain the significance of the tone of the communication.*

Measurement Criteria: *Use concise, coherent organization.*

Measurement Criteria: *Use language, terminology, and complexity suitable to audience.*

Measurement Criteria: *Use language sensitive to culture and gender.*

Measurement Criteria: *Address multiple intelligences and modalities.*

Measurement Criteria: *Use appropriate volume, rate, and clarity of voice.*

Measurement Criteria: *Use multiple mediums.*

Performance Element: Use persuasive communication to enlist stakeholder commitment.

Measurement Criteria: *Create awareness of problem.*

Measurement Criteria: *Explain relevance to audience and context.*

Measurement Criteria: *Propose needed action and the role of the audience in that action.*

Measurement Criteria: *Create visualization of effects of proposed action.*

Measurement Criteria: *Explain the significance of the tone of the communication.*

Measurement Criteria: *Use concise, coherent organization.*

Measurement Criteria: *Use language, terminology, and complexity suitable to audience.*

Measurement Criteria: *Use language sensitive to culture and gender.*

Measurement Criteria: *Address multiple intelligences and modalities.*

Measurement Criteria: *Use appropriate volume, rate, and clarity of voice.*

Measurement Criteria: *Use multiple mediums.*

Performance Element: Use non-verbal communication to enhance verbal communication.

Measurement Criteria: *Explain the congruency between non-verbal and verbal communication.*

Measurement Criteria: *Describe intentional use of appearance, gesture, and tone of voice.*

Performance Element: Use knowledge of audience to customize communication.

Measurement Criteria: *Describe audience characteristics.*

Measurement Criteria: *Explain alignment of communication components to audience characteristics.*

Performance Element: Recognize and address barriers to oral communication.

Measurement Criteria: *Address language barriers.*

Measurement Criteria: *Explain alignment of communication components to audience characteristics.*

Cluster Knowledge and Skill Statement

Performance Element: Give clear verbal directions.

Measurement Criteria: Organize steps logically.

Measurement Criteria: Use language, terminology, and complexity suitable to audience.

Measurement Criteria: Reference prior knowledge and experience of audience.

Measurement Criteria: Address both content and processes.

Measurement Criteria: Use appropriate volume, rate, and clarity of voice.

Performance Element: Utilize feedback to improve communication.

Measurement Criteria: Interpret verbal and non-verbal feedback.

Measurement Criteria: Allow appropriate response time based on audience and context.

Measurement Criteria: Adapt communication based on feedback.

Statement: Employ interactive communication to enhance learning and stakeholder commitment to learning organization.

Performance Element: Utilize interviewing skills.

Measurement Criteria: Obtain complete information.

Measurement Criteria: Maintain focus on interview objectives.

Measurement Criteria: Explain evidence that interviewee understood the purpose of the interview and the information conveyed in the interview.

Performance Element: Utilize discussion skills.

Measurement Criteria: Construct objectives for the discussion.

Measurement Criteria: Describe evidence that participants actively contributed.

Measurement Criteria: Maintain focus on discussion topic.

Measurement Criteria: Explain evidence that participants' understanding of the topic advanced.

Performance Element: Utilize questioning skills.

Measurement Criteria: Describe evidence that participants actively responded.

Measurement Criteria: Questions are suitable for audience and context in terms of Bloom's Taxonomy of higher-order thinking.

Measurement Criteria: Explain evidence that participants' understanding of the topic advanced.

Performance Element: Apply listening skills to enhance learning and stakeholder investment in learning organization.

Measurement Criteria: Explain components of active listening.

Measurement Criteria: Describe barriers to effective listening.

Performance Element: Follow verbal directions.

Measurement Criteria: Follow directions completely.

Measurement Criteria: Follow directions precisely.

Statement: Apply writing skills to enhance learning and stakeholder investment in learning organization.

Performance Element: Write informational correspondence to stakeholders.

Measurement Criteria: Use language, terminology, and complexity suitable to audience.

Measurement Criteria: Use concise, coherent organization.

Measurement Criteria: Explain the significance of the tone of the correspondence.

Measurement Criteria: Use language sensitive to culture and gender.

Cluster Knowledge and Skill Statement

Performance Element: Write clear directions.

    Measurement Criteria: *Organize steps logically.*

    Measurement Criteria: *Use language, terminology, and complexity suitable to audience.*

    Measurement Criteria: *Address both content and processes.*

    Measurement Criteria: *Use concise, coherent organization.*

Performance Element: Write summative reports.

    Measurement Criteria: *Cite data.*

    Measurement Criteria: *Use language, terminology, and complexity suitable to audience.*

    Measurement Criteria: *Address both positive and negative aspects of the topic.*

    Measurement Criteria: *Use language sensitive to culture and gender.*

Performance Element: Write position papers.

    Measurement Criteria: *Cite data.*

    Measurement Criteria: *Synthesize multiple sources of information.*

    Measurement Criteria: *Use persuasive communication.*

    Measurement Criteria: *Use coherent organization.*

    Measurement Criteria: *Use language and terminology suitable to audience.*

    Measurement Criteria: *Use language sensitive to culture and gender.*

Performance Element: Write requests for funding, resources, and services.

    Measurement Criteria: *Describe required formatting and components.*

    Measurement Criteria: *Include all required components.*

    Measurement Criteria: *Use language and terminology suitable to audience.*

    Measurement Criteria: *Cite data.*

    Measurement Criteria: *Use persuasive communication.*

    Measurement Criteria: *Use concise, coherent organization.*

    Measurement Criteria: *Use language sensitive to culture and gender.*

Performance Element: Employ graphic communication to enhance learning and stakeholder investment in learning organization.

    Measurement Criteria: *Explain relevance to audience and context.*

    Measurement Criteria: *Use complexity suitable to audience.*

    Measurement Criteria: *Graphics can be easily seen and read.*

Cluster Knowledge and Skill Statement

Problem Solving and Critical Thinking

Statement: Apply problem solving and critical thinking skills to enhance instruction and learner achievement.

Performance Element: Utilize scientific thinking to solve problems.

Measurement Criteria: Define the problem.

Measurement Criteria: Explain hypothetical solutions based on prior knowledge.

Measurement Criteria: Describe the collection of data.

Measurement Criteria: Explain analysis of data.

Measurement Criteria: Explain conclusions.

Performance Element: Synthesize multiple and conflicting data and viewpoints to derive a position on educational issues.

Measurement Criteria: Explain similarities in data and viewpoints.

Measurement Criteria: Explain dissimilarities in data and viewpoints.

Measurement Criteria: Use inductive and deductive reasoning.

Measurement Criteria: Explain a position based on multiple and conflicting data and viewpoints.

Performance Element: Utilize reflection strategies to improve instructional skills and learner achievement.

Measurement Criteria: Solicit and evaluate feedback of others.

Measurement Criteria: Evaluate self-assessments.

Measurement Criteria: Encourage others to use reflection strategies.

Measurement Criteria: Explain behavior adaptations motivated by reflection.

Performance Element: Utilize perspective-taking to enhance instruction and learner achievement.

Measurement Criteria: Use open-ended questioning.

Measurement Criteria: Encourage respect for multiple opinions.

Performance Element: Utilize conflict resolution strategies.

Measurement Criteria: Use third party intervention and support.

Measurement Criteria: Openly and respectfully identify issues.

Measurement Criteria: Identify solutions that meet needs of all parties involved.

Statement: Apply critical thinking to respond to educational issues.

Performance Element: Analyze the diversity of objectives and perspectives of multiple stakeholders.

Measurement Criteria: Express respect for multiple viewpoints.

Measurement Criteria: Explain underlying assumptions of multiple viewpoints.

Measurement Criteria: Identify common ground among multiple viewpoints.

Performance Element: Analyze public and organizational policies and procedures.

Measurement Criteria: Predict the impact of policies and procedures on instructional goals.

Measurement Criteria: Explain options for aligning policies and procedures with instructional goals.

Cluster Knowledge and Skill Statement

Information Technology Applications

Statement: Use Personal information Management (PIM)/ Productivity applications.

Performance Element: Manage personal schedule and contact information.

Measurement Criteria: *Identify PIM applications such as MS Outlook, Lotus Notes, and others.*

Measurement Criteria: *Create tasks (to-do) list.*

Measurement Criteria: *Manage daily/weekly/monthly schedule using applications such as Notes, MS Outlook, etc.*

Performance Element: Create memos and notes.

Measurement Criteria: *Create reminder for oneself.*

Measurement Criteria: *Create and send notes, informal memos, reminder using PIM applications such as Lotus Notes, MS Outlook, and others.*

Statement: Use Electronic Mail applications.

Performance Element: Understand and identify the functions and purpose of email systems.

Measurement Criteria: *Demonstrate knowledge of the basic purposes of e-mail systems.*

Measurement Criteria: *Demonstrate knowledge of basic e-mail features and options.*

Measurement Criteria: *Demonstrate knowledge of security issues and guidelines for legal usage of e-mail.*

Measurement Criteria: *Demonstrate knowledge of contamination protection strategies for e-mail*, including not downloading attachments from unknown sources.*

Measurement Criteria: *Demonstrate knowledge of e-mail etiquette.*

Performance Element: Use email to communicate within and across organizations.

Measurement Criteria: *Access email system using login and password functions.*

Measurement Criteria: *Access email messages received.*

Measurement Criteria: *Access email attachments.*

Measurement Criteria: *Access needed information using e-mail help facilities and tools.*

Measurement Criteria: *Create e-mail messages in accordance with established business standards (e.g., grammar, word usage, spelling, sentence structure, clarity, e-mail etiquette).*

Statement: Use Internet Applications.

Performance Element: Search for and access information.

Measurement Criteria: *Access business and technical information using the Internet.*

Measurement Criteria: *Select search engine(s) to use.*

Measurement Criteria: *Select appropriate search procedures and approaches.*

Measurement Criteria: *Locate information using search engine(s) and Boolean logic.*

Measurement Criteria: *Evaluate Internet resources (e.g., accuracy of information.*

Statement: Use Writing/Publishing applications.

Performance Element: Prepare simple reports and other business communications.

Measurement Criteria: *Demonstrate proficiency in keyboarding skills.*

Measurement Criteria: *Retrieve existing documents.*

Measurement Criteria: *Create documents (e.g., letters, memos, reports) using existing forms and templates.*

Cluster Knowledge and Skill Statement

        Measurement Criteria: *Safeguard documents using name and save functions.*

        Measurement Criteria: *Format text using basic formatting functions.*

    Performance Element: Prepare complex reports and other business communications, integrating graphics and other non-text elements.

        Measurement Criteria: *Create new word processing forms, style sheets, and templates.*

        Measurement Criteria: *Use advanced formatting features (e.g., headers/footers/dropped caps, indexing).*

        Measurement Criteria: *Place graphics in document.*

        Measurement Criteria: *Output desktop publishing files.*

        Measurement Criteria: *Enhance publications using different fonts, styles, attributes, justification, etc.*

Statement: Use presentation applications.

    Performance Element: Prepare and deliver presentations for training, sales and information sharing.

        Measurement Criteria: *Identify hardware items that support presentation software (e.g. scanners, digital cameras, printers, and projection systems).*

        Measurement Criteria: *Insert a graph into a presentation.*

        Measurement Criteria: *Create computer presentation and handouts in accordance with basic principles of graphics, design and visual communication.*

        Measurement Criteria: *Run slide shows manually and automatically.*

        Measurement Criteria: *Edit presentations.*

Statement: Use Collaborative/Groupware applications.

    Performance Element: Facilitate group work through management of shared schedule and contact information.

        Measurement Criteria: *Manage daily/weekly/monthly schedule using applications such as Notes, MS Outlook, etc.*

        Measurement Criteria: *Maintain shared database of contact information.*

    Performance Element: Facilitate group work through management of shared files and online information.

        Measurement Criteria: *Organize, store, and share files in network directories.*

        Measurement Criteria: *Organize, store, and share files using web sites.*

    Performance Element: Facilitate group work through instant messaging or virtual meetings.

        Measurement Criteria: *Participate in virtual group discussions and meetings.*

Statement: Use Computer Operations applications.

    Performance Element: Manage computer operations.

        Measurement Criteria: *Apply basic commands of operating system software.*

        Measurement Criteria: *Employ desktop operating skills.*

    Performance Element: Manage file storage.

        Measurement Criteria: *Apply appropriate file and disk management techniques.*

        Measurement Criteria: *Differentiate between files and directories.*

        Measurement Criteria: *Determine file organization.*

        Measurement Criteria: *Demonstrate knowledge of the system utilities used for file management.*

Cluster Knowledge and Skill Statement

Systems

Statement: Use systems theory to explain models of education delivery.

Performance Element: Explain factors that affect learning systems.

Measurement Criteria: Explain the interdependence and mutual influence of stakeholders.

Measurement Criteria: Explain role of feedback.

Measurement Criteria: Explain role of external regulations.

Measurement Criteria: Explain role of social responsibility.

Measurement Criteria: Explain role of research.

Measurement Criteria: Explain role of non-educational systems.

Performance Element: Explain the role of the individual in learning systems.

Measurement Criteria: Explain role of partnerships.

Measurement Criteria: Explain role of professional organization membership.

Measurement Criteria: Explain role of mentoring.

Performance Element: Explain the role of organizations in learning systems.

Measurement Criteria: Explain role of clarifying identity and purpose.

Measurement Criteria: Explain role of governance.

Measurement Criteria: Explain role of professional development provider.

Measurement Criteria: Explain role of being a legislative voice.

Performance Element: Identify systems that deliver education and training.

Measurement Criteria: Identify public sources.

Measurement Criteria: Identify private sources.

Performance Element: Identify systems that fund education and training.

Measurement Criteria: Identify public sources.

Measurement Criteria: Identify private sources.

Statement: Form, sustain, and modify instructional systems to facilitate learning.

Performance Element: Explain concepts of systemic change.

Measurement Criteria: Explain system change in terms of changes in individual behavior.

Measurement Criteria: Explain system change in terms of structural changes in system.

Measurement Criteria: Explain inertia.

Measurement Criteria: Explain status quo.

Measurement Criteria: Explain change forces.

Performance Element: Communicate with stakeholders.

Measurement Criteria: Communicate frequently.

Measurement Criteria: Communicate honestly.

Performance Element: Use system resources to meet learner needs.

Measurement Criteria: Use multiple resources.

Measurement Criteria: Encourage reciprocity among system entities.

Performance Element: Advocate for learning organization and learners.

Measurement Criteria: Participate in professional organizations.

Measurement Criteria: Communicate learning successes among system entities.

Measurement Criteria: Promote learning initiatives within systems.

Cluster Knowledge and Skill Statement

Performance Element: Monitor system outcomes.

Measurement Criteria: *Use data.*

Measurement Criteria: *Evaluate quality, productivity, efficiency, and cost effectiveness.*

Measurement Criteria: *Explain outcomes in terms of interconnected components of systems.*

Measurement Criteria: *Explain outcomes in terms of organizational structure.*

Cluster Knowledge and Skill Statement

Safety, Health, and Environmental

Statement: Control risks to safety, health, and environment in the learning setting.

Performance Element: Evaluate equipment and facility safety within the learning environment.

Measurement Criteria:	*Identify potential hazards related to equipment and building codes.*
Measurement Criteria:	*Explain procedures for documenting and reporting hazards to appropriate authorities.*
Measurement Criteria:	*Explain appropriate corrective actions for equipment and building hazards.*
Measurement Criteria:	*Describe system for monitoring compliance with relevant equipment and facility safety regulations and procedures.*

Performance Element: Control risks to individual health and safety in the learning setting.

Measurement Criteria:	*Identify appropriate infection control procedures.*
Measurement Criteria:	*Describe universal precautions for bloodborne pathogens and the procedures for responding to and reporting exposure.*
Measurement Criteria:	*Explain procedures related to recognition of and responses to controlled substance risks.*
Measurement Criteria:	*Describe safe body mechanics relevant to the learning setting.*
Measurement Criteria:	*Describe safe ergonomics relevant to the learning setting.*
Measurement Criteria:	*Explain procedures related to criminal background checks, if appropriate to the learning setting.*
Measurement Criteria:	*Identify governmental regulations regarding worker and learner safety.*
Measurement Criteria:	*Describe fire precautions and response procedures.*
Measurement Criteria:	*Describe procedures for responding to violent and threatening behaviors, health risks, and fire emergencies.*
Measurement Criteria:	*Describe procedures for documenting and reporting violent and threatening behaviors, health risks, and fire emergencies.*
Measurement Criteria:	*Identify risks to psychological health in the learning setting.*
Measurement Criteria:	*Explain appropriate responses to psychological risks.*
Measurement Criteria:	*Monitor compliance with relevant individual health and safety regulations and procedures.*

Performance Element: Control environmental health and safety in the learning setting.

Measurement Criteria:	*Identify potential hazards.*
Measurement Criteria:	*Inspect the setting for environmental safety hazards.*
Measurement Criteria:	*Describe corrective actions for potential hazards.*
Measurement Criteria:	*Explain safe practices for the storage and use of hazardous materials.*
Measurement Criteria:	*Monitor compliance with relevant environmental health and safety regulations and procedures.*
Measurement Criteria:	*Describe procedures for documenting and reporting environmental hazards to appropriate authorities.*

Cluster Knowledge and Skill Statement

Statement: Use emergency procedures as necessary.

Performance Element: Use First Aid procedures as necessary.

Measurement Criteria: *Acquire and maintain certification.*

Measurement Criteria: *Analyze emergency situations and respond with appropriate actions.*

Performance Element: Use CPR procedures as necessary.

Measurement Criteria: *Acquire and maintain certification.*

Measurement Criteria: *Analyze emergency situations and respond with appropriate actions.*

Performance Element: Use safety equipment as necessary.

Measurement Criteria: *Identify safety equipment needed in the learning setting.*

Measurement Criteria: *Identify regulations for use of safety equipment in the learning setting.*

Performance Element: Create a disaster plan.

Measurement Criteria: *Solicit partnerships with community agencies.*

Measurement Criteria: *Explain the disaster plan.*

Measurement Criteria: *Communicate the plan to all stakeholders.*

Measurement Criteria: *Identify mechanisms for practicing the plan.*

Cluster Knowledge and Skill Statement

Leadership and Teamwork

Statement: Apply planning knowledge and skills to enhance professional practice.

Performance Element: Employ data to make decisions.

Measurement Criteria: Use multiple sources of data.

Measurement Criteria: Analyze data appropriately.

Measurement Criteria: Explain alignment of data and decisions made.

Performance Element: Analyze the dynamics of change to enhance professional practice.

Measurement Criteria: Evaluate multiple change factors.

Measurement Criteria: Adjust actions based on changing needs.

Performance Element: Employ strategic planning skills to enhance professional practice.

Measurement Criteria: Identify measurable goals.

Measurement Criteria: Prioritize.

Measurement Criteria: Analyze trends, factors, and issues that influence the organization and its future success.

Measurement Criteria: Create an action plan with timelines and accountability measures.

Measurement Criteria: Explain socially responsible components.

Performance Element: Employ project planning skills to enhance professional practice.

Measurement Criteria: Explain contexts that benefit from teamwork.

Measurement Criteria: Align project goals and activities with organizational mission.

Measurement Criteria: Analyze tasks.

Measurement Criteria: Create an action plan with timelines, needed resources, delegation of duties, and accountability measures.

Measurement Criteria: Identify means to recognize and reward contributions.

Statement: Apply group processing knowledge and skills to enhance professional practice.

Performance Element: Employ interpersonal skills to enhance professional practice.

Measurement Criteria: Use collaboration skills.

Measurement Criteria: Use compromise skills.

Measurement Criteria: Use conflict resolution techniques.

Measurement Criteria: Use consultation skills.

Measurement Criteria: Use mentoring skills.

Measurement Criteria: Use motivational strategies.

Performance Element: Employ group processes knowledge and skills to enhance professional practice.

Measurement Criteria: Use parliamentary procedure.

Measurement Criteria: Conduct productive and efficient meetings.

Measurement Criteria: Build consensus among stakeholders.

Cluster Knowledge and Skill Statement

Ethics and Legal Responsibilities

Statement: Explain ethical and legal boundaries of professional practice in learning settings.

Performance Element: Explain major laws that govern behavior within learning settings.

Measurement Criteria: Explain major laws affecting a variety of issues in learning settings.

Measurement Criteria: Explain personal and organizational liabilities associated with major laws.

Measurement Criteria: Identify regulatory agencies.

Measurement Criteria: Identify sources for updating information on legal boundaries.

Measurement Criteria: Identify sources for obtaining assistance in interpreting legal responsibilities.

Measurement Criteria: Explain consequences of non-compliance.

Performance Element: Analyze ethical responsibilities in professional practice within learning settings.

Measurement Criteria: Identify sources of applicable ethical codes.

Measurement Criteria: Analyze applicable ethical codes.

Measurement Criteria: Explain personal and organizational liabilities associated with ethical codes.

Measurement Criteria: Identify regulatory agencies.

Measurement Criteria: Identify sources for updating information on ethical boundaries.

Measurement Criteria: Identify sources for obtaining assistance in interpreting ethical responsibilities.

Measurement Criteria: Explain consequences of non-compliance.

Performance Element: Explain institutional policies and procedures that relate to ethical and legal behavior.

Measurement Criteria: Explain rationale for policies and procedures.

Measurement Criteria: Analyze expected effects of compliance and non-compliance.

Measurement Criteria: Explain consequences of non-compliance.

Statement: Explain legal rights that apply within learning settings.

Performance Element: Explain legal rights of stakeholders.

Measurement Criteria: Explain rights of expression.

Measurement Criteria: Explain nondiscrimination rights.

Measurement Criteria: Explain rights to due process.

Measurement Criteria: Explain privacy rights.

Performance Element: Explain legal rights of professional practitioners within learning settings.

Measurement Criteria: Explain rights of expression.

Measurement Criteria: Explain nondiscrimination rights.

Measurement Criteria: Explain rights to due process.

Measurement Criteria: Explain privacy rights.

Statement: Exhibit ethical and legal behavior in practice.

Performance Element: Perform work duties according to legal boundaries.

Measurement Criteria: Comply with applicable law.

Cluster Knowledge and Skill Statement

> *Measurement Criteria:*   *Practice within legislated scope of profession.*
>
> *Measurement Criteria:*   *Document, record, and report required information.*
>
> *Measurement Criteria:*   *Comply with financial audit requirements.*

Performance Element: Perform work duties in accordance with legal rights of stakeholders and coworkers.

> *Measurement Criteria:*   *Comply with applicable law.*
>
> *Measurement Criteria:*   *Encourage others to comply with applicable law.*

Performance Element: Perform work duties according to ethical boundaries.

> *Measurement Criteria:*   *Explain how decision-making and actions taken are aligned with commitments to learners and the profession.*
>
> *Measurement Criteria:*   *Analyze ethical dilemmas.*
>
> *Measurement Criteria:*   *Propose responses to ethical dilemmas.*
>
> *Measurement Criteria:*   *Maintain confidentiality.*

Cluster Knowledge and Skill Statement

Employability and Career Development

Statement: Use research skills to explore career options.

Performance Element: Use self-assessment and assessment by others to match personal characteristics to those associated with successful professional practice.

Measurement Criteria: *Assess independence and initiative.*

Measurement Criteria: *Assess flexibility.*

Measurement Criteria: *Assess warmth, caring, friendliness, and compassion.*

Measurement Criteria: *Assess enthusiasm, cheerfulness and sense of humor.*

Measurement Criteria: *Assess fairness and tolerance.*

Measurement Criteria: *Honesty, openness, and integrity.*

Performance Element: Explain career trajectories in education and training.

Measurement Criteria: *Identify practice settings.*

Measurement Criteria: *Analyze interests, aptitudes, and abilities and match them to characteristics and requirements of the profession.*

Measurement Criteria: *Explain future demographic and sociological trends that are likely to affect employment in education and training.*

Measurement Criteria: *Explain the developmental cycle of the profession.*

Performance Element: Use relationships with other professionals to explore career options.

Measurement Criteria: *Acquire membership in professional associations.*

Measurement Criteria: *Enter into job shadowing and mentoring relationships.*

Performance Element: Construct an individual career plan.

Measurement Criteria: *Write the career plan.*

Measurement Criteria: *Incorporate completion of certification/licensure/credentialing requirements.*

Measurement Criteria: *Revisit and adjust plan throughout career preparation and throughout career as practitioner.*

Statement: Acquire state-specific certification/license/credentialing required to practice.

Performance Element: Successfully complete requirements for certification/license/credentialing.

Measurement Criteria: *Complete required academic preparation.*

Measurement Criteria: *Meet non-academic requirements.*

Measurement Criteria: *Pass applicable standardized assessments of knowledge and skills.*

Performance Element: Make application for certification/license/credentials.

Measurement Criteria: *Identify issuing agency.*

Measurement Criteria: *Identify timelines.*

Measurement Criteria: *Present documentation of completion of requirements.*

Measurement Criteria: *Identify costs involved.*

Statement: Complete state-specific requirements to maintain employment and advance career.

Performance Element: Complete professional development requirements.

Measurement Criteria: *Identify appropriate sources of professional development.*

Measurement Criteria: *Identify timelines.*

Measurement Criteria: *Obtain documentation from issuing institutions/agencies.*

Cluster Knowledge and Skill Statement

Performance Element: Complete assessments of knowledge and skills.

Measurement Criteria: *Identify timelines.*

Measurement Criteria: *Complete applicable internal assessments.*

Measurement Criteria: *Complete applicable external assessments.*

Measurement Criteria: *Obtain documentation of successful completion.*

Education and Training

Cluster Knowledge and Skill Statement

Technical Skills

Statement: Employ planning skills to enhance professional practice.

Performance Element: Construct goals and objectives.
Measurement Criteria: Construct measurable goals and objectives.
Measurement Criteria: Align goals and objectives to organizational mission.
Measurement Criteria: Align actions to goals and objectives.

Performance Element: Analyze tasks to enhance professional practice.
Measurement Criteria: Deconstruct tasks into progressive steps.
Measurement Criteria: Explain knowledge, skills, and resources needed to accomplish tasks.

Performance Element: Employ time management skills to enhance professional practice.
Measurement Criteria: Prioritize tasks.
Measurement Criteria: Align time to the scope of the task.

Statement: Employ instructional skills to enhance learner achievement.

Performance Element: Apply instructional strategies to enhance learner achievement.
Measurement Criteria: Apply various strategies.
Measurement Criteria: Explain alignment of strategies to educational objectives.
Measurement Criteria: Explain alignment of strategies to characteristics of learners.

Performance Element: Adapt instructional strategies based on learner performance.
Measurement Criteria: Assess learner performance.
Measurement Criteria: Explain adaptations based on assessment data.

Performance Element: Use instructional tools to enhance learner achievement.
Measurement Criteria: Use various tools.
Measurement Criteria: Explain alignment of tools to strategies.

Statement: Employ organizational skills to enhance professional practice.

Performance Element: Employ record keeping skills to enhance professional practice and meet accountability standards.
Measurement Criteria: Maintain timely, accurate, accessible records.
Measurement Criteria: Maintain records of learner performance.
Measurement Criteria: Maintain financial records.

Performance Element: Employ logic skills to enhance professional practice.
Measurement Criteria: Sequence tasks and educational content logically.
Measurement Criteria: Explain connections of new tasks and educational content to prior knowledge and experience.

Statement: Employ presentation skills to enhance professional practice.

Performance Element: Align presentation strategies to audience.
Measurement Criteria: Identify characteristics of audience.
Measurement Criteria: Explain alignment of strategies to characteristics.

Performance Element: Employ multi-media strategies.
Measurement Criteria: Use various mediums.
Measurement Criteria: Combine mediums.

Statement: Employ research skills to enhance professional practice.

Cluster Knowledge and Skill Statement

Performance Element: Identify credible sources of research to enhance professional practice.

Measurement Criteria: *Identify professional literature sources.*

Measurement Criteria: *Identify Internet sources.*

Performance Element: Conduct research to enhance professional practice.

Measurement Criteria: *Conduct action research.*

Measurement Criteria: *Explain importance of research question to professional practice.*

Performance Element: Interpret research to enhance professional practice.

Measurement Criteria: *Analyze research data appropriately.*

Measurement Criteria: *Explain appropriate implications of research to professional practice.*

Performance Element: Disseminate research results to enhance professional practice.

Measurement Criteria: *Write reports of research that are understandable to stakeholders.*

Measurement Criteria: *Explain research results verbally to stakeholders in understandable terms.*

Statement: Employ group management skills to enhance professional practice.

Performance Element: Explain conditions that contribute to a receptive working climate.

Measurement Criteria: *Explain the role of trust among those working together.*

Measurement Criteria: *Explain strategies for establishing trust among individuals.*

Measurement Criteria: *Explain the role of respect among those working together.*

Measurement Criteria: *Explain strategies for establishing respect among individuals.*

Performance Element: Use environment to enhance work productivity, efficiency, and quality.

Measurement Criteria: *Explain ways that spatial arrangements enhance productivity, efficiency, and quality of work.*

Measurement Criteria: *Explain ways that environmental conditions are engineered to meet needs of those working in the environment.*

Statement: Employ assessment skills to enhance professional practice.

Performance Element: Use data to assess performance.

Measurement Criteria: *Use multiple sources of data, including self-assessment.*

Measurement Criteria: *Use appropriate assessment tools, including reflection.*

Measurement Criteria: *Interpret data appropriately.*

Performance Element: Communicate assessment to stakeholders.

Measurement Criteria: *Communicate assessment in terms that are understandable to the audience.*

Measurement Criteria: *Communicate assessment information in a timely manner.*

Measurement Criteria: *Maintain appropriate confidentiality.*

Measurement Criteria: *Solicit feedback from stakeholders.*

Performance Element: Use assessment to shape professional practice.

Measurement Criteria: *Adapt professional practice based on assessment data.*

Measurement Criteria: *Disseminate assessment results to encourage replication.*

Section III – Pathway Knowledge and Skills

PATHWAY: Administration and Administrative Support

Pathway Topic: Instructional Leadership

Pathway KS Statement: Synthesize cutting-edge knowledge and trends to enlist support for a vision of success for all learners.

Performance Element: Construct a vision of success to inspire all learners and stakeholders.

Measurement Criteria: *Identify learning goals appropriate for a pluralistic society.*

Measurement Criteria: *Integrate needs and characteristics of diverse learners.*

Measurement Criteria: *Describe the educational organization as a complex social, Describe the educational organization as a complex social, cultural, and economic system.*

Measurement Criteria: *Apply theories and strategies of social and organizational change.*

Performance Element: Communicate a vision of success to inspire all learners and stakeholders.

Measurement Criteria: *Explain the ways that data-based research strategies and strategic planning inform the vision.*

Measurement Criteria: *Utilize multiple means of communication.*

Performance Element: Construct plans and processes to implement vision.

Measurement Criteria: *Formulate motivational strategies.*

Measurement Criteria: *Cite data that predicts success of implementation plans and processes.*

Performance Element: Steward a vision of success to motivate all learners and stakeholders to share the vision.

Measurement Criteria: *Utilize persuasive communication.*

Measurement Criteria: *Establish a data-driven system for monitoring and evaluating realization of vision.*

Measurement Criteria: *Revise vision based on data-based evaluation.*

Measurement Criteria: *Express a commitment to continuous improvement.*

Performance Element: Plan strategies to promote stakeholder involvement.

Measurement Criteria: *Design short- and long-term plans.*

Measurement Criteria: *Utilize clear, honest communication regarding progress with vision.*

Pathway KS Statement: Foster a positive organizational culture to promote a climate conducive to learning.

Performance Element: Plan strategies to assess the learning climate.

Measurement Criteria: *Utilize multiple methods.*

Measurement Criteria: *Analyze subgroup data.*

Performance Element: Use context-appropriate strategies to capitalize on diversity.

Measurement Criteria: *Address language diversity.*

Measurement Criteria: *Address disabilities.*

Measurement Criteria: *Address gender.*

Measurement Criteria: *Address race and ethnicity.*

Pathway Topic: Instructional Leadership

Measurement Criteria: *Address socio-economic status.*

Pathway KS Statement: Facilitate instructional programs to meet organizational objectives.

Performance Element: Construct an organizational profile to describe learner needs.

Measurement Criteria: *Explain diverse needs of learners.*

Measurement Criteria: *Explain performance standards.*

Performance Element: Evaluate instructional programs to determine alignment with organizational objectives.

Measurement Criteria: *Utilize multiple measurement and assessment strategies.*

Measurement Criteria: *Explain alignment with organizational objectives.*

Performance Element: Use technology and information systems to meet instructional objectives.

Measurement Criteria: *Integrate use of technology and information systems into each instructional program.*

Measurement Criteria: *Utilize technology and information systems to monitor success of instructional programs.*

Performance Element: Provide appropriate resources to support instructional programs.

Measurement Criteria: *Consult instructional staff regarding program needs.*

Measurement Criteria: *Identify multiple sources of resources.*

Pathway KS Statement: Facilitate instructional practice to meet organizational objectives.

Performance Element: Construct a profile of learner performance to assess needs of learners.

Measurement Criteria: *Utilize appropriate research strategies.*

Measurement Criteria: *Analyze differences among subgroups.*

Performance Element: Employ strategies to promote research-based instructional practice.

Measurement Criteria: *Identify data-based, effective practice strategies.*

Measurement Criteria: *Explain alignment between practices and human development theory.*

Measurement Criteria: *Explain alignment between practices and learning theories.*

Measurement Criteria: *Explain alignment with individual differences.*

Performance Element: Assist instructional staff in understanding and applying effective practices for teaching and learning.

Measurement Criteria: *Consult instructional staff regarding needs for increased knowledge and skills.*

Measurement Criteria: *Plan in-service opportunities.*

Measurement Criteria: *Explain alignment between in-service topics and organization vision.*

Measurement Criteria: *Explain alignment between in-service topics and reflective practice research.*

Measurement Criteria: *Explain alignment between in-service topics and learner*

Pathway Topic: Instructional Leadership

performance data.

Measurement Criteria: *Explain alignment between in-service processes and adult learning theory and practice.*

Measurement Criteria: *Monitor implementation of effective practices following in-service opportunities.*

Measurement Criteria: *Express a commitment to lifelong learning.*

Performance Element: Provide appropriate resources to support effective practices for teaching and learning.

Measurement Criteria: *Consult instructional staff regarding needed instructional resources.*

Measurement Criteria: *Identify multiple sources of resources.*

Pathway Topic: Managerial Leadership

Pathway KS Statement: Guide personnel to meet organizational and personal objectives.

Performance Element: Plan strategies to enhance personnel performance.

Measurement Criteria: *Explain alignment with organizational and personal objectives.*

Measurement Criteria: *Cite past performance.*

Measurement Criteria: *Employ authentic problems and tasks.*

Measurement Criteria: *Cite learner performance.*

Measurement Criteria: *Utilize multiple strategies.*

Measurement Criteria: *Explain alignment with adult learning theories and practices.*

Measurement Criteria: *Develop means to monitor individual progress.*

Performance Element: Motivate personnel to meet organizational and personal objectives.

Measurement Criteria: *Describe high standards.*

Measurement Criteria: *Express a commitment to the worth of all individuals.*

Measurement Criteria: *Communicate expectations clearly to personnel.*

Measurement Criteria: *Communicate clearly to personnel the positive and negative consequences of behavior.*

Measurement Criteria: *Apply positive and negative consequences of behavior fairly and consistently.*

Pathway KS Statement: Manage operations to meet organizational objectives.

Performance Element: Use data to make decisions.

Measurement Criteria: *Collect qualitative data.*

Measurement Criteria: *Collect quantitative data.*

Measurement Criteria: *Analyze data.*

Measurement Criteria: *Interpret research.*

Measurement Criteria: *Identify multiple options for action.*

Measurement Criteria: *Recommend action based on data.*

Performance Element: Construct a strategic plan to guide use of resources.

Measurement Criteria: *Reference needs assessment.*

Measurement Criteria: *Consult all personnel.*

Pathway Topic: Managerial Leadership

Measurement Criteria: *Utilize consensus-building processes.*

Measurement Criteria: *Utilize conflict-resolution processes.*

Measurement Criteria: *Analyze costs and benefits.*

Measurement Criteria: *Prepare written procedures and policies.*

Performance Element: Plan facilities to meet organizational objectives.

Measurement Criteria: *Address safety and security.*

Measurement Criteria: *Explain alignment with organizational objectives.*

Measurement Criteria: *Explain alignment with educational goals.*

Measurement Criteria: *Explain adequacy of facilities.*

Performance Element: Secure adequate resources to meet organizational objectives.

Measurement Criteria: *Explain organization finance structures and models.*

Measurement Criteria: *Justify strategies to secure adequate funds.*

Measurement Criteria: *Justify strategies to recruit personnel.*

Measurement Criteria: *Justify strategies to retain personnel.*

Pathway Topic: Political Leadership

Pathway KS Statement: Collaborate with stakeholders to meet organizational objectives.

Performance Element: Create stakeholder partnerships to meet organizational objectives.

Measurement Criteria: *Engage diverse stakeholders.*

Measurement Criteria: *Apply community relations models.*

Measurement Criteria: *Employ marketing strategies and processes.*

Measurement Criteria: *Utilize a variety of outreach methods.*

Measurement Criteria: *Construct a plan for media relations.*

Performance Element: Respond to stakeholders' needs and interests to engage their participation.

Measurement Criteria: *Construct a plan for visibility.*

Measurement Criteria: *Identify various strengths of diverse stakeholders.*

Pathway KS Statement: Employ advocacy strategies to meet organization and learner needs.

Performance Element: Mobilize stakeholder resources to meet organizational needs.

Measurement Criteria: *Utilize resources of multiple stakeholders.*

Measurement Criteria: *Explain mutual benefits to stakeholders, organization, and learners.*

Measurement Criteria: *Construct plans to meet special needs of organization.*

Performance Element: Use resources to realize organizational vision.

Measurement Criteria: *Utilize multiple resources.*

Measurement Criteria: *Explain mutual benefits to society, organization, and learners.*

Measurement Criteria: *Construct plans to encourage offerings of new resources.*

Performance Element: Use organizational resources to respond to community issues of joint concern.

Measurement Criteria: *Identify concerns of multiple stakeholders.*

Pathway Topic: Political Leadership

Measurement Criteria: *Explain mutual benefits to stakeholders, organization, and learners.*

Pathway KS Statement: Negotiate within political, social, economic, legal, and cultural contexts to meet organizational objectives.

Performance Element: Monitor political, social, economic, legal, and cultural contexts to promote realization of organization vision.

Measurement Criteria: *Describe contextual issues, trends, and potential changes.*

Measurement Criteria: *Communicate contextual issues, trends, and potential changes to stakeholders.*

Performance Element: Influence political, social, economic, legal, and cultural contexts to promote realization of organization vision.

Measurement Criteria: *Engage decision makers representing larger contexts in dialogue.*

Measurement Criteria: *Engage stakeholders in advocating for organization-friendly political, social, economic, legal, and cultural policies.*

Performance Element: Explain the relationship of political, social, economic, legal, and cultural contexts to organizational objectives.

Measurement Criteria: *Explain intersection of larger contexts and institutional objectives.*

Measurement Criteria: *Analyze causes of contextual barriers to organizational vision.*

Measurement Criteria: *Explain related contextual norms and values.*

Measurement Criteria: *Analyze ways that policies of larger contexts affect organization's vision.*

PATHWAY: Professional Support Services

Pathway Topic: Assessment

Pathway KS Statement: Employ strategies and techniques to determine needs of learners.

Performance Element: Use multiple strategies to determine learner needs.

Measurement Criteria: *Utilize observation.*
Measurement Criteria: *Utilize interviewing.*
Measurement Criteria: *Utilize consultation.*
Measurement Criteria: *Utilize testing.*
Measurement Criteria: *Utilize review of documents.*

Performance Element: Evaluate the appropriateness of assessment tools.

Measurement Criteria: *Evaluate multiple assessment tools.*
Measurement Criteria: *Explain alignment to learner need and characteristics.*
Measurement Criteria: *Explain alignment to learner characteristics.*
Measurement Criteria: *Explain alignment to assessment purpose.*
Measurement Criteria: *Seek learner input.*

Performance Element: Use appropriate assessment tools to determine needs of learners.

Measurement Criteria: *Utilize multiple tools.*
Measurement Criteria: *Explain standardized measures.*
Measurement Criteria: *Explain qualitative measures.*
Measurement Criteria: *Explain quantitative measures.*

Performance Element: Interpret assessment results to determine needs of learners.

Measurement Criteria: *Triangulate multiple data sources.*
Measurement Criteria: *Explain statistical concepts.*
Measurement Criteria: *Justify conclusions.*

Performance Element: Communicate assessment results to prepare stakeholders to participate in developing an action plan for educational success.

Measurement Criteria: *Communicate with learners.*
Measurement Criteria: *Include learner input in assessment profile.*
Measurement Criteria: *Monitor understanding of information.*

Pathway KS Statement: Teach stakeholders to identify needs of learners.

Performance Element: Teach stakeholders to recognize the need for proactive support for learning.

Measurement Criteria: *Teach multiple strategies for recognizing needs.*
Measurement Criteria: *Explain benefits of proactive support.*
Measurement Criteria: *Cite research-based data to support benefits of proactive actions.*
Measurement Criteria: *Explain potential resources for support.*

Performance Element: Teach stakeholders to recognize existing barriers to learning.

Measurement Criteria: *Teach multiple strategies for recognizing barriers.*
Measurement Criteria: *Cite incidence within organization.*
Measurement Criteria: *Explain benefits of intervention.*

Pathway Topic: Assessment

Measurement Criteria: *Explain potential resources for intervention.*

Pathway Topic: Support and Intervention

Pathway KS Statement: Employ strategies and techniques to raise awareness of learners' needs.

Performance Element: Stimulate stakeholder interest in meeting needs of learners.

Measurement Criteria: *Utilize persuasive communication.*

Measurement Criteria: *Explain mutual benefits to stakeholders, organization, and learners.*

Measurement Criteria: *Cite learner successes.*

Performance Element: Advocate for increased resources to meet needs of learners.

Measurement Criteria: *Utilize persuasive communication.*

Measurement Criteria: *Explain mutual benefits to society, organization, and learners.*

Measurement Criteria: *Cite learner successes.*

Measurement Criteria: *Engage stakeholders in process.*

Pathway KS Statement: Plan ways to enhance educational success.

Performance Element: Identify appropriate resources to meet specific needs of learners.

Measurement Criteria: *Identify multiple resources.*

Measurement Criteria: *Explain availability of resources.*

Measurement Criteria: *Explain alignment of resources with learner needs.*

Measurement Criteria: *Explain alignment of resources with learner characteristics.*

Performance Element: Construct a personal or group action plan for educational success.

Measurement Criteria: *Cite multiple sources of data to document need and potential success.*

Measurement Criteria: *Interpret data correctly.*

Measurement Criteria: *Engage appropriate stakeholders in the process.*

Measurement Criteria: *Explain educational goals.*

Measurement Criteria: *Explain alignment of goals to the means.*

Measurement Criteria: *Record plan in writing.*

Measurement Criteria: *Cite multiple sources of data to document potential success.*

Pathway KS Statement: Coordinate support and services to meet needs of learners.

Performance Element: Refer learners to appropriate resources.

Measurement Criteria: *Suggest multiple resources.*

Measurement Criteria: *Explain alignment to client needs.*

Measurement Criteria: *Explain alignment to client characteristics.*

Measurement Criteria: *Explain locations, costs, services, and procedures clearly.*

Measurement Criteria: *Plan follow-up contacts to determine outcomes.*

Performance Element: Conduct group meetings of appropriate stakeholders.

Measurement Criteria: *Employ principles of group dynamics.*

Measurement Criteria: *Explain purposes of meetings clearly.*

Pathway Topic: Support and Intervention

Measurement Criteria: *Explain goals.*

Measurement Criteria: *Identify responsibilities.*

Performance Element: Provide support and services to enhance learning.

Measurement Criteria: *Explain alignment of services and support to learning theory.*

Measurement Criteria: *Explain alignment of services and support to principles of academic, career, and personal/social development.*

Measurement Criteria: *Explain alignment of services and support to client need and characteristics.*

Measurement Criteria: *Explain alignment of services and support to client need and characteristics.*

Measurement Criteria: *Explain goals.*

Measurement Criteria: *Explain principles of support and service processes.*

Pathway KS Statement: Evaluate success of support and services.

Performance Element: Measure outcomes of support and services.

Measurement Criteria: *Align measured outcomes with a pre-constructed plan for support or services.*

Measurement Criteria: *Utilize appropriate data-collection strategies.*

Measurement Criteria: *Analyze data correctly.*

Measurement Criteria: *Justify conclusions.*

Performance Element: Recommend future support and services to enhance learning.

Measurement Criteria: *Include learner input.*

Measurement Criteria: *Support recommendations.*

Measurement Criteria: *Include action strategies.*

PATHWAY: Teaching/Training

Pathway Topic: Planning/Preparing

Pathway KS Statement: Employ fundamental knowledge of subject matter to plan/prepare instruction.

Performance Element: Use resources and processes to update knowledge and skills on an ongoing basis.

Measurement Criteria: *Reference multiple sources of information.*

Measurement Criteria: *Reference multiple learning methods.*

Measurement Criteria: *Identify sources of National, State, or Regulatory standards.*

Measurement Criteria: *Explain major concepts, assumptions, debates, principles, and theories central to the subject matter.*

Measurement Criteria: *Test hypotheses and uses methods of inquiry and standards of evidence appropriate for the subject matter in order to generate knowledge and skills.*

Measurement Criteria: *Define knowledge as an evolving construct.*

Measurement Criteria: *Express a commitment to lifelong learning.*

Performance Element: Identify prerequisite knowledge that will provide a bridge between past and future knowledge for learners.

Measurement Criteria: *Use prerequisite knowledge as a foundation in instructional plans.*

Measurement Criteria: *Explain learner misunderstanding in terms of lack of prerequisite knowledge.*

Performance Element: Apply principles of scope and sequence to plan instruction.

Measurement Criteria: *Order content from simple to complex.*

Measurement Criteria: *Connect various elements of content.*

Performance Element: Integrate various content to make explicit the connections to other subject matter.

Measurement Criteria: *Integrate multiple subject matter into instructional plans.*

Measurement Criteria: *Make connections logical, accurate, and meaningful to learners.*

Performance Element: Explain connections to life and career applications to make content relevant to learners.

Measurement Criteria: *Integrate real-world applications into instructional plans.*

Measurement Criteria: *Make connections logical, accurate, and meaningful to learners.*

Pathway KS Statement: Use needs of learners and organizations to design courses/programs.

Performance Element: Analyze standards, organization goals, and learners to select appropriate content.

Measurement Criteria: *Align content to National, State, Business and Industry, and Regulatory standards.*

Measurement Criteria: *Customize content to organization goals.*

Measurement Criteria: *Customize content to learners' abilities, interests, and future objectives.*

Pathway Topic: Planning/Preparing

Performance Element: Use assessment tools to determine needs of learners and organizations.

Measurement Criteria: *Use self-assessments.*

Measurement Criteria: *Use a variety of methods.*

Performance Element: Employ analytical skills to evaluate instructional resources and program materials.

Measurement Criteria: *Evaluate alignment to instructional goals.*

Measurement Criteria: *Evaluate alignment to learner characteristics.*

Measurement Criteria: *Evaluate comprehensiveness, accuracy, and literacy characteristics.*

Pathway KS Statement: Employ knowledge of learning and developmental theory to describe individual learners.

Performance Element: Locate information to describe individual learners.

Measurement Criteria: *List multiple and diverse characteristics of individual learners.*

Measurement Criteria: *Identify resources for locating information.*

Performance Element: Apply learning and developmental theory to relate individual characteristics to the learning process.

Measurement Criteria: *Explain the relevance of individual characteristics to the learning process.*

Measurement Criteria: *Identify typical characteristics.*

Measurement Criteria: *Identify exceptional characteristics.*

Pathway KS Statement: Use content knowledge and instructional skills to construct standards based educational goals.

Performance Element: Use knowledge of learners to align goals with learners' developmental level, abilities, interests, and future objectives.

Measurement Criteria: *Address intellectual, social, career, and developmental needs.*

Measurement Criteria: *Explain the relationship of goals to the real world.*

Measurement Criteria: *Accommodate the needs of diverse learners.*

Performance Element: Use National, State, Business and Industry, or Regulatory standards to establish learner performance standards.

Measurement Criteria: *Use standards that challenge all learners.*

Measurement Criteria: *Use standards that are applicable to contexts that are meaningful to learners.*

Performance Element: Identify clear goals.

Measurement Criteria: *Describe learning indicators rather than learner activities.*

Measurement Criteria: *Identify goals that are measurable.*

Measurement Criteria: *Identify short- and long-term goals.*

Performance Element: Identify a variety of learning goals.

Measurement Criteria: *Explain learning goals for multiple content areas or multiple strands of a content area.*

Measurement Criteria: *Explain knowledge goals.*

Measurement Criteria: *Explain skill mastery goals.*

Pathway Topic: Planning/Preparing

> ***Measurement Criteria:*** *Explain thinking process goals.*

Pathway KS Statement: Apply knowledge of teaching and learning and instructional skills to plan educational strategies.

Performance Element: Use knowledge of learners to align instructional strategies to learners' backgrounds.

> ***Measurement Criteria:*** *Vary strategies according to learner characteristics.*
> ***Measurement Criteria:*** *Align strategies to learners' existing skills.*
> ***Measurement Criteria:*** *Align strategies to learners' prior knowledge.*
> ***Measurement Criteria:*** *Align strategies to learners' interests.*
> ***Measurement Criteria:*** *Align strategies to learners' cultural experiences.*
> ***Measurement Criteria:*** *Align strategies to learners' role experiences.*
> ***Measurement Criteria:*** *Align strategies to learners' developmental level.*

Performance Element: Apply teaching/learning theory to select appropriate learning activities.

> ***Measurement Criteria:*** *Identify multiple activities.*
> ***Measurement Criteria:*** *Align activities with learning goals.*
> ***Measurement Criteria:*** *Align activities with the nature of the content.*
> ***Measurement Criteria:*** *Explain the advantages and disadvantages of the activities.*
> ***Measurement Criteria:*** *Incorporate technologies appropriate to the subject matter.*
> ***Measurement Criteria:*** *Vary the role of the educator.*

Performance Element: Use multiple ways to group learners to enhance instruction.

> ***Measurement Criteria:*** *Explain how groupings support educational goals.*
> ***Measurement Criteria:*** *Permit learners to participate in selecting patterns of instructional groups.*

Performance Element: Use organizational skills to design a coherent structure of instructional strategies.

> ***Measurement Criteria:*** *Relate all elements of instruction to each other and to instructional goals.*
> ***Measurement Criteria:*** *Allocate time realistically.*
> ***Measurement Criteria:*** *Identify different learning pathways based on learner needs.*

Performance Element: Develop strategies to encourage the transfer of knowledge and skills.

> ***Measurement Criteria:*** *Customize content to fit multiple learner purposes and settings.*
> ***Measurement Criteria:*** *Contextualize instructional examples based on learners' characteristics.*
> ***Measurement Criteria:*** *Use assignments that apply knowledge and skills to relevant real-world purposes and settings.*

Pathway KS Statement: Identify needed materials and resources to support instructional plan.

Performance Element: Identify materials and resources needed to enhance instruction.

> ***Measurement Criteria:*** *Identify personal and organizational resources.*
> ***Measurement Criteria:*** *Identify community resources.*

Pathway Topic: Planning/Preparing

Measurement Criteria: *Describe access to resources.*

Measurement Criteria: *Explain how identified materials and resources support educational goals.*

Performance Element: Identify resources to aid learners in learning.

Measurement Criteria: *Identify personal and organizational resources.*

Measurement Criteria: *Identify community resources.*

Measurement Criteria: *Describe access to resources.*

Measurement Criteria: *Explain how identified materials and resources support educational goals.*

Pathway KS Statement: Use knowledge of content, teaching/learning, and assessment to plan assessment/evaluation strategies.

Performance Element: Apply assessment theory to select appropriate assessment/evaluation strategies.

Measurement Criteria: *Identify the purpose of the assessment.*

Measurement Criteria: *Explain the alignment of selected assessment strategies to educational goals.*

Measurement Criteria: *Identify multiple strategies.*

Measurement Criteria: *Describe learner self-assessment strategies.*

Performance Element: Apply knowledge of content and teaching/learning to select appropriate assessment/evaluation strategies.

Measurement Criteria: *Assess/evaluate multiple goals.*

Measurement Criteria: *Assess/evaluate content goals.*

Measurement Criteria: *Assess/evaluate process goals.*

Measurement Criteria: *Identify clearly the criteria and standards to be used to assess/evaluate.*

Pathway Topic: Learning Environment

Pathway KS Statement: Establish a positive climate to promote learning.

Performance Element: Establish respect and rapport to foster positive social and intellectual interactions.

Measurement Criteria: *Encourage respectful interactions between instructor and learners.*

Measurement Criteria: *Encourage respectful interactions among learners.*

Measurement Criteria: *Demonstrate fairness.*

Measurement Criteria: *Give recognition to learners' cultural backgrounds.*

Performance Element: Explain the importance of content to promote interest in learning.

Measurement Criteria: *Demonstrate enthusiasm for content.*

Measurement Criteria: *Identify real-world connections.*

Measurement Criteria: *Encourage lifelong learning.*

Performance Element: Establish challenging expectations for each learner.

Measurement Criteria: *Base standards of achievement on National, State, and Regulatory standards.*

Measurement Criteria: *Explain standards to learners in a clear manner.*

Pathway Topic: Learning Environment

Measurement Criteria: *Expect high performance on a consistent basis.*

Measurement Criteria: *Encourage learner responsibility for learning.*

Pathway KS Statement: Employ motivational, social, and psychological theory and effective practices to guide learners' personal conduct.

Performance Element: Document expectations to make standards of conduct clearly known.

Measurement Criteria: *Communicate positive and negative outcomes of behavior.*

Measurement Criteria: *Enlist participation of learners in determining expectations .*

Measurement Criteria: *Utilize principles of conflict resolution.*

Measurement Criteria: *Utilize principles of democracy.*

Performance Element: Use various strategies to monitor learners' personal conduct.

Measurement Criteria: *Stay continually alert to learners' conduct.*

Measurement Criteria: *Use appropriate intervention aimed at prevention.*

Measurement Criteria: *Use appropriate intervention aimed at correction.*

Performance Element: Provide appropriate feedback to respond to learners' personal conduct.

Measurement Criteria: *Provide consistent responses.*

Measurement Criteria: *Provide respectful responses.*

Measurement Criteria: *Provide responses reflective of learners' needs.*

Measurement Criteria: *Utilize positive and negative outcomes of behavior fairly and consistently.*

Pathway KS Statement: Use organizational and relationship-building skills to manage instructional activities and related procedures.

Performance Element: Utilize engagement of learners to optimize benefits of instructional groups.

Measurement Criteria: *Engage learners consistently.*

Measurement Criteria: *Vary the participants and structure of groupings.*

Measurement Criteria: *Utilize meaningful group tasks.*

Performance Element: Employ time management skills to effectively manage instructional transitions.

Measurement Criteria: *Utilize efficient transitions.*

Measurement Criteria: *Optimize instructional time.*

Performance Element: Employ organizational skills to manage instructional resources (i.e., tools, equipment, supplies, and materials).

Measurement Criteria: *Implement effective resource management systems.*

Measurement Criteria: *Optimize instructional time.*

Performance Element: Reutilize procedures to perform non-instructional duties.

Measurement Criteria: *Utilize efficient procedures.*

Measurement Criteria: *Prepare learners to expect the procedural routines.*

Measurement Criteria: *Enlist learners to participate in procedural routines.*

Measurement Criteria: *Preserve maximum amount of instructional time.*

Performance Element: Employ organizational and relationship-building skills to

Pathway Topic: Learning Environment

supervise others.

Measurement Criteria: *Prepare others to work independently.*

Measurement Criteria: *Prepare others to work productively.*

Pathway KS Statement: Employ awareness of physical elements to optimize learning.

Performance Element: Use arrangement of space, equipment, and furniture to optimize learning.

Measurement Criteria: *Arrange physical space, equipment, and furniture to enhance instructional plan.*

Measurement Criteria: *Adjust instructional plan to accommodate physical space, equipment, and furniture.*

Performance Element: Use physical access to facilitate learning for all learners.

Measurement Criteria: *Provide equitable access for all learners.*

Measurement Criteria: *Use physical resources optimally.*

Pathway Topic: Instruction

Pathway KS Statement: Employ instructional strategies to advance learning.

Performance Element: Use appropriate representations to make content meaningful to learners.

Measurement Criteria: *Vary representations.*

Measurement Criteria: *Utilize clear and accurate representations.*

Measurement Criteria: *Utilize representations that encourage critical thinking and problem solving.*

Measurement Criteria: *Link representations to learners' prior knowledge and experience.*

Measurement Criteria: *Solicit additional representations from learners.*

Performance Element: Use learning activities and assignments to challenge and engage learners.

Measurement Criteria: *Vary activities and assignments.*

Measurement Criteria: *Align activities and assignments with learning goals.*

Measurement Criteria: *Encourage learners to initiate and adapt activities and assignments in order to enhance learners' understanding.*

Performance Element: Use content and knowledge of teaching/learning to deliver instruction coherently.

Measurement Criteria: *Provide reflection time.*

Measurement Criteria: *Include a closure process.*

Measurement Criteria: *Utilize a consistent pace of instruction.*

Measurement Criteria: *Utilize a pace of instruction that is appropriate for learners.*

Performance Element: Employ instructional materials and resources to enhance learning.

Measurement Criteria: *Utilize multiple materials and resources.*

Measurement Criteria: *Utilize community materials and resources.*

Measurement Criteria: *Align materials and resources with learning goals.*

Pathway Topic: Instruction

Measurement Criteria: *Encourage learners to choose, adapt, and create materials and resources in order to enhance learners' understanding.*

Performance Element: Use questioning techniques to encourage higher-order thinking.

Measurement Criteria: *Provide adequate time for responding to questions.*

Measurement Criteria: *Probe answers to extend thinking.*

Measurement Criteria: *Encourage learners' questioning.*

Performance Element: Use discussion techniques to engage learners.

Measurement Criteria: *Encourage learners to initiate topics.*

Measurement Criteria: *Permit learners to offer unsolicited contributions.*

Measurement Criteria: *Engage all learners.*

Performance Element: Employ educational technology to enhance learning.

Measurement Criteria: *Demonstrate technological literacy and skills.*

Measurement Criteria: *Utilize multiple technologies.*

Measurement Criteria: *Align technologies with instructional goals.*

Measurement Criteria: *Explain standards for determining the credibility of information.*

Measurement Criteria: *Analyze the advantages and disadvantages of use of technology for instruction.*

Measurement Criteria: *Evaluate technology-based instructional materials.*

Performance Element: Use cooperative learning techniques to engage learners.

Measurement Criteria: *Align groupings of learners and group tasks to learner needs and characteristics.*

Measurement Criteria: *Align groupings of learners and group tasks to learning goals.*

Measurement Criteria: *Encourage learners to influence groupings and tasks in order to enhance learners' understanding.*

Measurement Criteria: *Foster productivity of learning groups.*

Performance Element: Use work-based learning techniques to extend learning.

Measurement Criteria: *Apply knowledge and skills in real-world settings.*

Measurement Criteria: *Coach worksite applications of knowledge and skills.*

Performance Element: Use project-based learning techniques to extend learning.

Measurement Criteria: *Apply cross-curricular knowledge and skills to real world settings.*

Measurement Criteria: *Apply research and problem solving skills.*

Measurement Criteria: *Apply work, community, and home applications of knowledge and skills.*

Performance Element: Provide support for learning organizations and activities to extend learning opportunities.

Measurement Criteria: *Give awards and recognition.*

Measurement Criteria: *Sponsor and advises organizations and activities.*

Pathway KS Statement: Use learner response to plan appropriate in-process adaptations in instructional plans.

Performance Element: Analyze learner performance to determine needed

Pathway Topic: Instruction

adjustments in instructional plans.

Measurement Criteria: *Accept responsibility for learner performance.*

Measurement Criteria: *Seek new approaches to help struggling learners.*

Performance Element: Incorporate learner questions and interests to make instruction relevant and responsive to learners.

Measurement Criteria: *Maintain coherent instruction.*

Measurement Criteria: *Maintain alignment of instruction to appropriate educational goals.*

Performance Element: Use spontaneous events to enhance learning.

Measurement Criteria: *Incorporate events into instruction.*

Measurement Criteria: *Maintain alignment of instruction to appropriate educational goals.*

Pathway KS Statement: Use assessment/evaluation to advance learning.

Performance Element: Employ data to assess/evaluate learning.

Measurement Criteria: *Use multiple sources of data.*

Measurement Criteria: *Interpret data correctly.*

Measurement Criteria: *Utilize learner self-assessment.*

Measurement Criteria: *Utilize authentic assessment.*

Measurement Criteria: *Utilize appropriate technology.*

Performance Element: Use feedback provided to learners to enhance learning.

Measurement Criteria: *Provide accurate feedback.*

Measurement Criteria: *Provide substantive feedback.*

Measurement Criteria: *Provide constructive feedback.*

Measurement Criteria: *Provide specific feedback.*

Measurement Criteria: *Assist learners in interpreting progress.*

Measurement Criteria: *Encourage learners to use feedback to enhance their learning.*

Performance Element: Apply assessment and teaching/learning theory to plan adjustments in instruction.

Measurement Criteria: *Align adjustments to assessment data.*

Measurement Criteria: *Justify adjustments in terms of data-based effective practice.*

Pathway Topic: Professional Responsibilities

Pathway KS Statement: Use reflection on past performance to assess effectiveness of instructional practice.

Performance Element: Construct an active philosophy of instruction to form criteria for assessing effective instructional practice.

Measurement Criteria: *Prepare a written philosophy of instruction.*

Measurement Criteria: *Reference research-based, effective practice.*

Measurement Criteria: *Address efficacy.*

Measurement Criteria: *Update philosophy regularly.*

Performance Element: Employ various strategies to systematically monitor effectiveness of instruction.

Measurement Criteria: *Consult colleagues.*

Pathway Topic: Professional Responsibilities

Measurement Criteria: *Reflect accurately on instruction.*

Measurement Criteria: *Cite supporting data.*

Performance Element: Analyze past actions to refine instructional practice.

Measurement Criteria: *Express a commitment to continuous improvement.*

Measurement Criteria: *Suggest multiple alternative actions.*

Measurement Criteria: *Explain merits of alternative actions.*

Pathway KS Statement: Locate pathways to improve knowledge and skills.

Performance Element: Use participation in professional associations to improve knowledge and skills.

Measurement Criteria: *Establish membership.*

Measurement Criteria: *Utilize services of professional associations.*

Measurement Criteria: *Participate in professional association activities.*

Performance Element: Employ in-service education to improve knowledge and skills.

Measurement Criteria: *Prepare a written personal growth plan.*

Measurement Criteria: *Identify multiple resources.*

Measurement Criteria: *Utilize technology.*

Measurement Criteria: *Utilize observations of colleagues.*

Measurement Criteria: *Explain applications of in-service learnings.*

Pathway KS Statement: Use community-building skills to advance the profession and organizational vision.

Performance Element: Form partnerships with colleagues to establish a community of learners.

Measurement Criteria: *Seek opportunities to work collaboratively with colleagues.*

Measurement Criteria: *Maintain cordial relationships.*

Measurement Criteria: *Share personal expertise.*

Measurement Criteria: *Share in decision-making and problem solving.*

Performance Element: Employ interpersonal skills to recruit and attract able individuals to teaching/training.

Measurement Criteria: *Demonstrate enthusiasm for teaching/training.*

Measurement Criteria: *Demonstrate competency in teaching/training.*

Measurement Criteria: *Use persuasive communication.*

Measurement Criteria: *Offer assistance to those pursuing teaching/training.*

Performance Element: Utilize expertise to advance organizational vision.

Measurement Criteria: *Assume additional responsibilities.*

Measurement Criteria: *Focus on the well being of learners and the organization.*

Performance Element: Participate in community affairs to engage community in organization vision.

Measurement Criteria: *Apply personal expertise to issues of mutual concern.*

Measurement Criteria: *Focus on the well being of the community.*

Pathway KS Statement: Use organizational skills to maintain accurate records.

Performance Element: Use organizational skills to record learner assignments.

Pathway Topic: Professional Responsibilities

Measurement Criteria: *Maintain complete, orderly, and timely records.*

Measurement Criteria: *Make records accessible to appropriate stakeholders.*

Performance Element: Use organizational skills to record learner progress.

Measurement Criteria: *Maintain complete, interpretable, and timely records.*

Measurement Criteria: *Make records accessible to appropriate stakeholders.*

Performance Element: Use organizational skills to record non-instructional data.

Measurement Criteria: *Maintain complete and timely records.*

Measurement Criteria: *Make records accessible to appropriate stakeholders.*

Pathway KS Statement: Plan strategies to maintain relationships with organization stakeholders.

Performance Element: Advocate for needs of learners, organization, community, and profession.

Measurement Criteria: *Explain mutual benefits.*

Measurement Criteria: *Assess needs of all categories of stakeholders.*

Measurement Criteria: *Cite supporting data.*

Performance Element: Seek opportunities to promote instructional program.

Measurement Criteria: *Communicate frequently.*

Measurement Criteria: *Provide accurate program descriptions.*

Measurement Criteria: *Address the goals of stakeholders.*

Measurement Criteria: *Cite outcome data.*

Performance Element: Seek opportunities to engage stakeholders in organization vision.

Measurement Criteria: *Engage stakeholders frequently.*

Measurement Criteria: *Give recognition to stakeholder contributions to program.*

Performance Element: Provide information to meet appropriate accountability standards.

Measurement Criteria: *Follow policies on organizational reporting.*

Measurement Criteria: *Respond to concerns of stakeholders.*

Measurement Criteria: *Report both positive and negative outcomes.*

Measurement Criteria: *Provide accurate information.*

Section IV – O*NET Crosswalk Report

Career Specialty/ Occupational Coding and Crosswalk

Summary

The objective of the Career Specialty/ Occupational Coding and Crosswalk project is to accomplish two basic tasks. The first is to design and establish a classification and coding structure for the States' Career Clusters Initiative. When completed, the classification and coding structure will be compatible with existing occupational classification systems and designed in a manner that allows for easy updating and the flexibility to add additional career pathways and occupational specialties.

Once the first step is completed for each cluster, the second step is to build a linkage system or crosswalk between the new career cluster classification system and the O*NET occupational classification system developed and operated by the U S Department of Labor. O*NET is a nationally recognized taxonomy with detailed descriptions and a rich database of information for each occupation.

Explanation of Crosswalk Table

The attached table lists each occupational specialty and its related O*NET occupation. It is sequenced by career pathway and occupational specialty code. It should be noted that the relationship between an occupational specialty and its related O*NET occupation is often not one-to-one. The O*NET occupation is often much broader covering two or more occupational specialties. In fact, even when multiple occupational specialties are assigned, they may only represent a part of a broader O*NET occupation.

Column 1: Lists occupational specialties that were identified by the Career Clusters Initiative. The occupational specialties are organized by cluster pathways and represent occupational titles with no definitions. They are intended to be a sample of occupations that help define the cluster and pathway.

Column 2: Represents related occupations from the O*NET occupational coding system.

Note: A crosswalk from the occupational specialties to the Classification of Instructional Programs (CIP) codes is forthcoming. The National Crosswalk Service Center is currently developing the CIP to O*NET crosswalk which will be the bridge to the career cluster occupational specialties. You may access this crosswalk in the near future at: http://www.xwalkcenter.org/

Education and Training Career Cluster: Occupational Specialties and Related O*NET Occupations, Sequenced by Career Pathway and Occupational Specialty Code

Occupational Specialties		Related SOC/O*NET Occupation Classification	
Code	**Title**	**Code**	**Title**
5.10000	**Administration and Administrative Support Pathway**		
5.10000	Superintendents, Principals, Administrators	11-9031.00	Education Administrators, Preschool and Child Care Center/Program
5.10000	Superintendents, Principals, Administrators	11-9032.00	Education Administrators, Elementary and Secondary School
5.10000	Superintendents, Principals, Administrators	11-9033.00	Education Administrators, Postsecondary
5.10010	Supervisors and Instructional Coordinators	25-9031.00	Instructional Coordinators
5.10020	Education Researchers, Test Measurement Specialists	15-2041.00	Statisticians
5.10030	College Presidents, Deans	11-9033.00	Education Administrators, Postsecondary
5.10040	Curriculum Developers	25-9031.00	Instructional Coordinators
5.10050	Instructional Media Designers	25-9031.00	Instructional Coordinators
5.20000	**Support Services Pathway**		
5.20010	Psychologists- Clinical, Developmental, Social	19-3031.00	Clinical, Counseling, and School Psychologists
5.20020	Social Workers	21-1021.00	Child, Family, and School Social Workers
5.20030	Parent Educators	25-3099.00	Teachers and Instructors, All Other
5.20040	Counselors	21-1012.00	Educational, Vocational, and School Counselors
5.20050	Speech-Language Pathologists and Audiologists	29-1127.00	Speech-Language Pathologists
5.30000	**Teaching/Training Pathway**		
5.30010	Preschool, Kindergarten Teachers	25-2011.00	Preschool Teachers, Except Special Education
5.30020	Elementary Teachers	25-2021.00	Elementary School Teachers, Except Special Education
5.30020	Elementary Teachers	25-2022.00	Middle School Teachers, Except Special and Vocational Education
5.30020	Elementary Teachers	25-2023.00	Vocational Education Teachers, Middle School
5.30030	Secondary Teachers	25-2031.00	Secondary School Teachers, Except Special and Vocational Education
5.30030	Secondary Teachers	25-2032.00	Vocational Education Teachers, Secondary School
5.30040	Special Education Teachers	25-2041.00	Special Education Teachers, Preschool, Kindergarten, and Elementary School
5.30040	Special Education Teachers	25-2042.00	Special Education Teachers, Middle School
5.30040	Special Education Teachers	25-2043.00	Special Education Teachers, Secondary School
5.30050	Preschool, Kindergarten Teacher Aids	25-9041.00	Teacher Assistants
5.30060	Elementary Teacher Aids	25-9041.00	Teacher Assistants
5.30070	Secondary Teacher Aids	25-9041.00	Teacher Assistants

Education and Training Career Cluster: Occupational Specialties and Related O*NET Occupations, Sequenced by Career Pathway and Occupational Specialty Code

Occupational Specialties		Related SOC/O*NET Occupation Classification	
Code	**Title**	**Code**	**Title**
5.30080	Special Education Teacher Aids	25-9041.00	Teacher Assistants
5.30090	College/University Lecturers, Professors	25-1000.00	Postsecondary Teachers
5.30100	Human Resource Trainers	13-1073.00	Training and Development Specialists
5.30110	Physical Trainers	39-9031.00	Fitness Trainers and Aerobics Instructors
5.30120	Coaches	27-2022.00	Coaches and Scouts
5.30130	Child Care Directors	11-9031.00	Education Administrators, Preschool and Child Care Center/Program
5.30140	Child Care Workers	39-9011.00	Child Care Workers
5.30150	Child Life Specialist	39-9011.00	Child Care Workers
5.30160	Nanny	39-9011.00	Child Care Workers
5.30170	Early Childhood Teachers	25-2011.00	Preschool Teachers, Except Special Education
5.30170	Early Childhood Teacher Assistants	25-9041.00	Teacher Assistants
5.30180	Teacher Aids	25-9041.00	Teacher Assistants
5.30190	Group Workers and Assistants	39-9032.00	Recreation Workers

Section V – Cluster Profile
Advisory Committee List

Career Cluster Profile

Cluster Name: Education and Training

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Cluster Coordinator: Greg Dewald

Cluster Definition: Planning, managing and providing education and training services, and related learning support services.

Cluster Pathways: Administration and Administrative Support, Professional Support Services, Teaching/Training

Cluster Partners: List attached.
>   **Number of cluster partners in each of the following categories:**

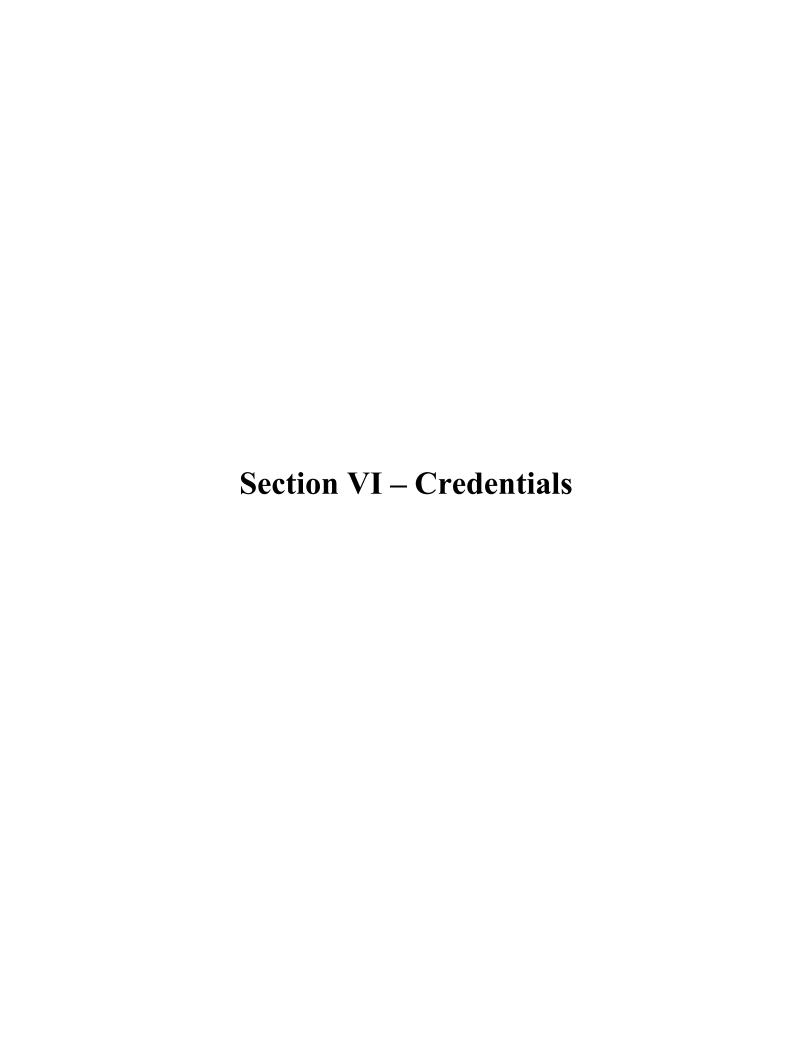|	
Postsecondary Education:	11
Secondary Education:	7
Business & Industry	7
Labor	3
Associations	18
Government Agencies	12
Parents	1
Students	1
Researchers	2

Deliverable #1: Education and Training Cluster Advisory Committee

Executive Committee indicated in bold

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John Williams	Deputy Director	MDCD/Career Education Programs	201 north Washington Square, 7th Floor	Lansing	MI 48913	517.241.4000	Williamsjl.Michigan.gov	Administration and Administrative Support
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Section VI – Credentials

Deliverable #2: Education and Training List of Existing Credentials
(includes licenses, education and industry certificates, as well as postsecondary degree options)
Updated 02/21/02

Education and Industry *Licenses*		
Title/Type/Descriptor of Licensing Program	**Licensing Organization**	**Source for Contact Information**

Teachers
    Preschool
    Elementary
    Early Childhood
    Kindergarten
    Special Education
        Physically Impaired
        Sensory Impaired
        Learning Disabilities
        Exceptional Children
        Mental Handicapped
        Emotionally
        Disturbed
        Reading/ Language
	(Varies from State to State)	**www.careertools.org**
		Search under *Licensed Occupations* by specific Education and Training occupations, by state, or by agency

Secondary
    Art
    Band
    Biology
    Chemistry
    Computer Science
    Drama
    Earth Science
    English
    ESL
    Foreign Language
    General Science
    Health
    Mathematics
    Music
    Physical Education
    Physical Science
    Physics
    Social Studies
    Speech
	(Varies from State to State)	

Career and Technology Education Instructors
    Agricultural Education
    Business Education
    Career Education
    Cooperative Education
    Cosmetology
    Family and Consumer Sciences
    Health Occupations
        Dental Lab
        Technology
        Medical Assisting
        Nursing Assistant
        Practical Nursing
    Marketing Education
    School-to-Work Transition
    Specialist
    Technology Education
    Trade and Industrial Education
        Auto Body
        Auto Mechanics
        Avionics
        Carpentry
        Commercial Food
        Diesel Mechanic
        Drafting
        Electricty
        Electronics
        Printing
        Small Engine Repair
        Special Education
	(Varies from State to State)	**www.careertools.org**
		Search under *Licensed Occupations* by specific Education and Training occupations, by state, or by agency

Postsecondary
    Chemistry
    Computer
    English and Foreign
    Language
    Engineering
    Life sciences
    Physics
    Social Sciences
	(Varies from State to State)	

School Administrators/Support
      Superintendent
      Assistant Superintendent,
      Curriculum
      Assistant Superintendent,
      Instruction
      Director, Adult and Community
      Development
      Director, Special Education
      Director, Curriculum
      Development /Instruction
      Principal
            Elementary
            Secondary
            Adult Education
      Administrative Assistant
      School Psychologist
      School Business Administrator
      School Counselor
      School Bus Driver/CDL
      School Librarian
      School Library Media Specialist
      Vocational - Technical School
      Administrator
	(Varies from State to State)	**www.careertools.org**
		Search under *Licensed Occupations* **by specific Education and Training occupations, by state, or by agency**

Child Day Care Center Head Teacher Child Day Care Educational Director	(Varies from State to State)	

Private Technical Training
      Athletic Trainer
      Asbestos Abatement Training
       Provider
      Barber Instructor
      Cosmetology Instructor
      Lead-based Paint Abatement
      Training Provider
      Fire Service Instructor
      Firearms Instructor
      Law Enforcement – General
      Real Estate Instructor
      Driver Training Instructor
	(Varies from State to State)	

Education and Industry *Certificates*

Title/Type/Descriptor of Certification Program	Issuing Organization	Source for Contact Information
Certified Security Trainer (CST)	Academy of Security Educators and Trainees (ASET)	http://www.personalprotection.com/aset/html/application.html
Certified Athletic Administrator (CAA)	National Interscholastic Athletic Administration Association (NIAAA)	http://www.nfhs.org/niaaa/caa.html

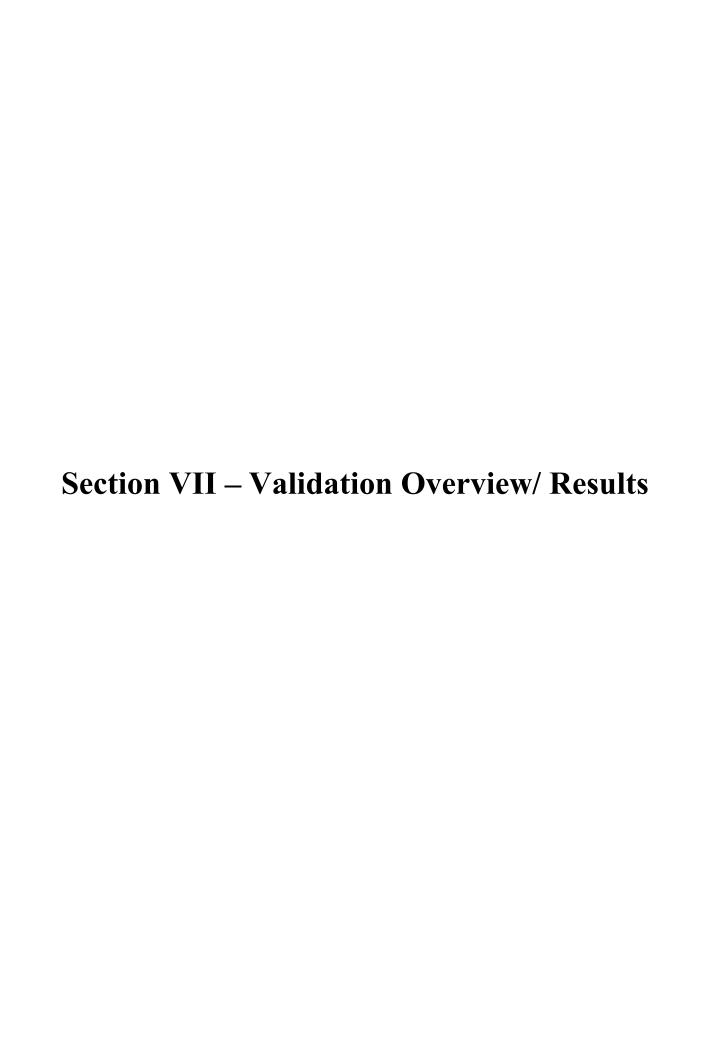|		
Diplomate of the American Board of Vocational Experts Fellow of the American Board of Vocational Experts	American Board of Vocational Experts (ABVE)	http://www.abve.net/
American Center for the Alexander Technique Teacher Certification	American Center for the Alexander Technique (ACAT)	http://www.alexandertech.com/
Childbirth Educator	Certified Perinatal Educators Association (CPEA)	1305 Grant Ave, #B, Novato, CA 94945, (415) 893-0439
Child Development Associate (CDA)	Council for Early Childhood Professional Recognition (CECPR)	http://www.cdacouncil.org/
Certified Data Educator (CDE)	Data Education Certification Council (DECC)	
Certified Educational Planner	Independent Educational Consultants Association (IECA)	http://www.educationalconsulting.org/
Certified Educational Office Employee (CEOE)	National Association of Educational Office Professionals (NAEOP)	http://www.naeop.org/
Nationally Certified School Psychologists (NCSP)	National Association of School Psychologists (NASP)	http://www.nasponline.org/index2.html
Certified Athletic Trainer (C.A.T.)	National Athletic Trainers Association (NATA)	http://www.nata.org/main.htm
National Certified Career Counselor (NCCC) National Certified School Counselor	National Board for Certified Counselors (NBCC)	http://www.nbcc.org/
National Board Certified Teacher	National Board for Professional Teaching Standards (NBPTS)	http://www.nbpts.org/
Associate Environmental Trainer (AET); Certified Environmental Trainer (CET)	National Environmental Training Association (NETA)	http://www.ehs-training.org/
	National Federation of Professional Trainers	http://www.nfpt.com/

Postsecondary *Degree Options*

Title/Type/Descriptor of Degree Program	Degree Conferring Organization	Source for Contact Information
Agricultural Teacher Education	Colleges and Universities	**www.careertools.org** **Search under the topic *Training & Education***
Art Teacher Education	Colleges and Universities	
Bilingual/Bicultural Education	Colleges and Universities	
Business Teacher Education (Vocational)	Colleges and Universities	
Computer Teacher Education	Colleges and Universities	
Counselor Education/Student Counseling & Guidance Services	Colleges and Universities	
Education Administration & Supervision, General	Colleges and Universities	
Education of the Blind & Visually Handicapped	Colleges and Universities	
Education of the Deaf & Hearing Impaired	Colleges and Universities	
Education of the Specific Learning Disabled	Colleges and Universities	
Education of the Speech Impaired	Colleges and Universities	
Educational/Instructional Media Design	Colleges and Universities	
Elementary/Pre-Elem/Early	Colleges and Universities	
Childhood/Kindergarten Teacher Education	Colleges and Universities	
English Teacher Education	Colleges and Universities	
Family & Consumer Science Education	Colleges and Universities	

Family & Consumer Science Education (Vocational)	Colleges and Universities	
Foreign Languages Teacher Education	Colleges and Universities	
Health Teacher Education	Colleges and Universities	
Marketing Operations Teacher Education (Vocational)	Colleges and Universities	
Mathematics Teacher Education	Colleges and Universities	
Music Teacher Education	Colleges and Universities	
Physical Education Teaching & Coaching	Colleges and Universities	
Science Teacher Education, General	Colleges and Universities	**www.careertools.org** **Search under the topic** *Training & Education*
Secondary/Jr. High/Middle School Teacher	Colleges and Universities	
Special Education, General	Colleges and Universities	
Speech Teacher Education	Colleges and Universities	
Teacher Assistant/Aide	Colleges and Universities	
Technology Teacher Education/Industrial Arts Teacher Education	Colleges and Universities	
Trade & Industrial Teacher Education (Vocational)	Colleges and Universities	
Vocational Education Teacher	Colleges and Universities	
French Language Teacher Education	Colleges and Universities	

Section VII – Validation Overview/ Results

VALIDATION REPORT

Background

Cluster advisory committees made up of business and industry representatives, secondary/postsecondary educators, associations/organizations, government agencies and other stakeholders developed and conducted an initial review of the knowledge and skills statements. From July 15, 2002 through August 15, 2002, the States' Career Clusters Initiative conducted a national online validation of the knowledge and skill statements. The validation rated the degree of commonality and importance of each statement (see tables below). Each Cluster Committee reviewed the knowledge and skill ratings as well as any written responses to a particular statement. Likewise, each committee determined the appropriate action to take with regard to this data.

Cluster Question:

Question #1 : Is the knowledge and skill statement common to all occupations across the cluster ?	Question #2 : Is the knowledge and skill statement important to workplace success and/or further education ?

Pathway Question:

Question #1 : Is the knowledge and skill statement common to all occupations across the pathway ?	Question #2 : Is the knowledge and skill statement important to workplace success and/or further education ?

Rating Key:

Question #1:	Question #2:
Don't Know -N/A	Don't Know -N/A
Common to a few (25% or less)	Not important
Common to some (25 - 50%)	Somewhat important
Common to many (51 - 75%)	Important
Common to most (76 - 100%)	Critical

General Validation Statistics for the Eleven Clusters

Total Number of Respondents: 1133 completed profiles, 828 completed validation
Number of States/Others Represented: All 50 states/5 other
Overall profiles of respondents:
        Organization Type
                Business/Industry –17.3 %
                State Agency – 13.4 %
                Federal Agency – 2.4 %
                Association – 6.2 %
                Secondary Education – 36.5 %
                Postsecondary Education – 14.1 %
                Other – 10.1 %
        Average # of Years of Experience: 18.3 years

Education and Training Cluster Validation Statistics

Total Number of Respondents: 110
Number of States/Others Represented: 29
Overall profiles of respondents:
        Organization Type
                Business/Industry – 11.8 %
                State Agency – 20.9 %
                Federal Agency – 2.7 %
                Association – 2.7 %
                Secondary Education – 35.5 %
                Postsecondary Education – 16.4 %
                Other –10.0 %
        Average # of Years of Experience: 19.7 years

Cluster Responses

StatementCode	StatementDescription	# Rsps	Question #1: Is the knowledge and skill statement common to all occupations across the cluster?					Question #2: Is the knowledge and skill statement important to workplace success and/or further education?				
			Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
Cluster: Education and Training												
EDC01.01	Apply fundamental knowledge of psychology to enhance learner achievement.	101	3.34	4	12	31	54	3.13	0	21	46	34
EDC01.02	Apply fundamental knowledge of sociology to enhance learner achievement.	99	3.02	8	17	39	35	2.87	2	31	44	22
EDC01.03	Apply fundamental knowledge of cultural, ethnic, and racial groups to enhance learner achievement.	101	3.38	7	9	24	61	3.41	1	10	37	53
EDC01.04	Apply fundamental knowledge of the relationships between education and society to enhance learner achievement.	99	3.20	7	15	28	49	3.06	2	22	43	32
EDC01.05	Apply fundamental knowledge of instructional strategies to enhance learner achievement.	96	3.45	2	9	29	56	3.50	1	7	31	57
EDC01.06	Apply fundamental knowledge and skills of assessment to enhance learner achievement.	98	3.39	1	10	37	50	3.29	1	14	39	44
EDC01.07	Apply fundamental knowledge of economics to enhance learner achievement.	99	2.48	16	33	36	14	2.49	6	45	41	7
EDC02.01	Apply verbal communication skills to enhance learning and stakeholder commitment to learning organization.	95	3.59	0	8	23	64	3.69	0	3	23	69
EDC02.02	Employ interactive communication to enhance learning and stakeholder commitment to learning organization.	97	3.43	1	10	32	54	3.48	0	6	38	53
EDC02.03	Apply writing skills to enhance learning and stakeholder investment in learning organization.	99	3.45	1	6	39	53	3.48	0	6	39	54
EDC03.01	Apply problem solving and critical thinking skills to enhance instruction and learner achievement.	97	3.59	3	3	25	66	3.67	0	3	26	68
EDC03.02	Apply critical thinking to respond to educational issues.	100	3.33	4	12	31	53	3.42	1	8	39	52

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDC04.01	Use Personal information Management (PIM)/ Productivity applications.	85	2.67	12	22	33	18	2.64	4	31	42	8
EDC04.02	Use Electronic Mail applications.	98	3.21	2	19	33	44	3.06	1	22	45	30
EDC04.03	Use Internet Applications.	98	3.37	0	15	32	51	3.24	1	13	45	39
EDC04.04	Use Writing/Publishing applications.	97	2.89	4	28	40	25	2.85	1	32	45	19
EDC04.05	Use Presentation applications.	98	2.93	5	25	40	28	3.06	0	24	44	30
EDC04.06	Use Spreadsheet applications.	100	2.37	14	45	31	10	2.50	3	51	39	7
EDC04.07	Use Database applications.	99	2.34	20	35	34	10	2.51	6	43	44	6
EDC04.08	Use Collaborative/Groupware applications.	88	2.63	10	30	31	17	2.68	4	34	36	14
EDC04.09	Use Geographic Information/ Global Positioning (GIS/GPS) applications.	83	1.81	38	27	14	4	2.00	22	43	14	4
EDC04.10	Use Computer Operations applications.	94	3.09	5	21	29	39	3.13	2	16	44	32
EDC05.01	Use systems theory to explain models of education delivery.	97	2.40	20	37	21	19	2.57	9	40	32	16
EDC05.02	Form, sustain, and modify instructional systems to facilitate learning.	94	3.02	7	17	37	33	3.21	1	16	39	38
EDC06.01	Control risks to safety, health, and environment in the learning setting.	94	3.55	2	10	16	66	3.61	0	5	27	62
EDC06.02	Use emergency procedures as necessary.	96	3.56	4	5	20	67	3.60	0	6	26	64
EDC07.01	Apply planning knowledge and skills to enhance professional practice.	96	3.38	3	11	29	53	3.44	1	2	47	46
EDC07.02	Apply group processing knowledge and skills to enhance professional practice.	94	3.16	3	14	42	35	3.16	1	11	54	28
EDC08.01	Explain ethical and legal boundaries of professional practice in learning settings.	92	3.14	9	10	32	41	3.33	1	8	43	40
EDC08.02	Explain legal rights that apply within learning settings.	93	3.09	9	12	34	38	3.24	1	11	46	35

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDC08.03	Exhibit ethical and legal behavior in practice.	94	3.65	1	5	20	68	3.70	0	2	24	68
EDC09.01	Use research skills to explore career options.	93	2.96	8	20	33	32	3.10	0	17	50	26
EDC09.02	Acquire state-specific certification/license/credentialing required to practice.	97	3.42	4	6	32	55	3.47	2	7	31	57
EDC09.03	Complete state-specific requirements to maintain employment and advance career.	95	3.43	2	8	32	53	3.39	2	9	34	50
EDC10.01	Employ planning skills to enhance professional practice.	95	3.33	2	14	30	49	3.31	0	10	46	39
EDC10.02	Employ instructional skills to enhance learner achievement.	95	3.42	0	7	41	47	3.47	0	4	42	49
EDC10.03	Employ organizational skills to enhance professional practice.	96	3.38	2	11	32	51	3.23	0	11	52	33
EDC10.04	Employ presentation skills to enhance professional practice.	95	3.12	2	16	46	31	3.19	0	10	57	28
EDC10.05	Employ research skills to enhance professional practice.	95	2.87	6	27	35	27	2.97	1	26	43	25
EDC10.06	Employ promotion and marketing skills to enhance professional practice.	95	2.60	19	20	36	20	2.56	6	40	39	10
EDC10.07	Employ group management skills to enhance professional practice.	96	2.90	10	22	32	32	2.93	0	28	47	21
	Totals:	**3923**	**3.11**	**277**	**683**	**1291**	**1672**	**3.14**	**83**	**748**	**1623**	**1469**

Pathway Response

Ratings of "Don't Know" are not included in this report.

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
				Question #1: Is the knowledge and skill statement common to all occupations within the pathway?				Question #2: Is the knowledge and skill statement important to workplace success and/or further education?				

Cluster: Education and Training — **Pathway: Administration and Administrative Support**

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDPA01.01	Synthesize cutting-edge knowledge and trends to enlist support for a vision of success for all learners.	31	3.42	1	5	5	20	3.35	2	2	10	17
EDPA01.02	Foster a positive organizational culture to promote a climate conducive to learning.	33	3.58	0	5	4	24	3.64	1	1	7	24
EDPA01.03	Facilitate instructional programs to meet organizational objectives.	33	3.39	0	5	10	18	3.52	0	3	10	20
EDPA01.04	Facilitate instructional practice to meet organizational objectives.	33	3.24	0	6	13	14	3.33	1	2	15	15
EDPA02.01	Guide personnel to meet organizational and personal objectives.	33	3.36	0	6	9	18	3.55	0	4	7	22
EDPA02.02	Manage operations to meet organizational objectives.	33	3.45	0	5	8	20	3.36	0	3	15	15
EDPA03.01	Collaborate with stakeholders to meet organizational objectives.	33	3.48	1	3	8	21	3.55	0	2	11	20
EDPA03.02	Employ advocacy strategies to meet organization and learner needs.	32	3.34	1	5	8	18	3.34	0	3	15	14
EDPA03.03	Negotiate within political, social, economic, legal, and cultural contexts to meet organizational objectives.	33	3.27	2	6	6	19	3.42	0	4	11	18

Cluster: Education and Training — **Pathway: Professional Support Services**

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDPB01.01	Employ strategies and techniques to determine needs of learners.	31	3.39	1	5	6	19	3.52	0	2	11	18
EDPB01.02	Teach stakeholders to identify needs of learners.	30	3.13	2	4	12	12	3.30	0	4	13	13
EDPB02.01	Employ strategies and techniques to raise awareness of learners' needs.	31	3.19	3	1	14	13	3.26	1	0	16	13
EDPB02.02	Plan ways to enhance educational success.	29	3.48	1	1	10	17	3.59	0	2	8	19

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDPB02.03	Coordinate support and services to meet needs of learners.	31	3.35	1	5	7	18	3.58	0	2	9	20
EDPB02.04	Evaluate success of support and services.	30	3.23	1	6	8	15	3.40	0	3	12	15

Cluster: Education and Training **Pathway: Teaching/Training**

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDPC01.01	Employ fundamental knowledge of subject matter to plan/prepare instruction.	66	3.68	2	4	7	53	3.64	1	1	15	48
EDPC01.02	Use needs of learners and organizations to design courses/programs.	64	3.55	1	5	16	42	3.63	0	2	16	45
EDPC01.03	Employ knowledge of learning and developmental theory to describe individual learners.	65	3.29	3	6	25	31	3.32	1	4	33	27
EDPC01.04	Use content knowledge and instructional skills to construct educational goals.	65	3.46	1	8	16	40	3.46	0	3	29	33
EDPC01.05	Apply knowledge of teaching and learning and instructional skills to plan educational strategies.	65	3.52	1	8	12	44	3.62	0	2	21	42
EDPC01.06	Identify needed materials and resources to support instructional plan.	65	3.57	1	2	21	41	3.48	0	1	32	32
EDPC01.07	Use knowledge of content, teaching/learning, and assessment to plan assessment/evaluation strategies.	65	3.54	1	3	21	40	3.40	0	5	25	34
EDPC02.01	Establish a positive climate to promote learning.	65	3.74	1	2	10	52	3.83	0	1	9	55
EDPC02.02	Employ motivational, social, and psychological theory and effective practices to guide learners' personal conduct.	65	3.23	4	8	22	31	3.23	0	11	28	26
EDPC02.03	Use organizational and relationship-building skills to manage instructional activities and related procedures.	65	3.34	3	6	22	34	3.28	0	6	35	24
EDPC02.04	Employ awareness of physical elements to optimize learning.	62	3.19	3	10	21	28	3.10	0	12	32	18
EDPC03.01	Employ instructional strategies to advance learning.	63	3.44	1	6	20	36	3.60	0	2	21	40
EDPC03.02	Use learner response to dictate appropriate in-process adaptations in instructional plans.	61	3.30	3	11	12	35	3.43	0	6	23	32
EDPC03.03	Use assessment/evaluation to advance learning.	64	3.42	1	5	24	34	3.41	0	5	28	31

StatementCode	StatementDescription	# Rsps	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
EDPC04.01	Use reflection on past performance to assess effectiveness of instructional practice.	63	3.38	0	10	19	34	3.49	0	4	24	35
EDPC04.02	Locate pathways to improve knowledge and skills.	61	3.13	4	10	21	26	3.21	1	7	31	22
EDPC04.03	Use community-building skills to advance the profession.	64	2.81	6	18	22	18	3.00	1	13	35	15
EDPC04.04	Use organizational skills to maintain accurate records.	64	3.38	2	6	22	34	3.31	1	5	31	27
EDPC04.05	Plan strategies to maintain relationships with organization stakeholders.	65	3.12	3	14	20	28	3.12	1	11	32	21
	Totals:	**1693**	**3.37**	**55**	**210**	**481**	**947**	**3.42**	**11**	**138**	**670**	**870**

Section VIII – Assessment Protocol
Certification Protocol

Deliverable #7
Title: Protocol for Career Clusters Assessment
8/5/2002 4:00 PM

Definition of Career Clusters Assessment

Assessment, within the context of the Career Clusters Initiative, is defined as *a **measurement** of what a learner should know and be able to do*. The academic and technical knowledge and skills common to all occupations and pathways within a single cluster are initially addressed in the Career Clusters Initiative. Each cluster measures or assesses a learner's knowledge and skills related to the cluster.

Purpose of the Protocol for Career Clusters Assessments

The purpose of this document is to provide:
- Minimum criteria for selecting existing assessment instruments that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for developing new assessment instruments that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for validating and determining reliability of assessment instruments.

Functions of Career Clusters Assessment

Career Cluster Assessment serves to
- *measure* (assess) *student achievement*, both cognitive and performance, in areas of academic and technical knowledge and skills for each cluster
- *provide the basis* for a transportable, industry-endorsed certification.

Operational Guidelines for Career Clusters Assessment

This protocol includes minimum criteria/expectations career cluster designers need to apply in the selection/development of assessment modalities. Career clusters assessment:

CONTENT
- measures all 10 Foundation knowledge and skills.
- customizes context of questions and applications to individual clusters.
- reflects a high degree of specificity of measurable knowledge and skills.
- aligns to academic standards.
- connects to post high school standards and competencies.
- is consistent with Perkins data-quality criteria.

FORM
- combines a minimum of two modalities: cognitive and performance.
- includes an item bank that can accommodate multiple applications.
- reflects quality design and clear formats.

APPLICATIONS AND USES
- offers diagnostic feedback to the learner.
- provides added value to the user (employer, post high school); not required for employment.
- affords portability of results.
- provides cues for instruction.

ADMINISTRATION

- validates identity of test takers through a secure system.
- affords flexible administration, e.g. single assessment per foundation cluster topic or combination of topics.
- provides flexible timing for administration.
- affords no cost or low cost to students.
- includes an affordable, user-friendly process to cover administrative costs.
- reflects an administration process that is as consistent as possible with other career cluster assessments.
- includes an affordable, user-friendly maintenance process.

VALIDITY AND RELIABILITY

- uses consistent, reliable, and technically strong elements.
- is recognized by business and industry.
- is recognized by post high school education and training.

Deliverable #8
Title: Protocol for Career Clusters Certification
8/23/2002 2:28 PM

Definition of Career Clusters Certification

Certification, within the context of the States' Career Clusters Initiative, *documents* learner achievement of the academic and technical knowledge and skills common to all pathways and occupations within a cluster. It is based on valid and reliable assessments. A certificate is recognized by employers, secondary education, and post high school education as "value added to the admissions process to further education, immediate employment process, and/or to employment advancement".

Purposes of the Protocol for Careers Cluster Certification

The purposes of this document are to provide:
- Minimum criteria for selecting existing certification programs that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for developing new certification programs that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for determining the value of a certification program.

Functions of Career Clusters Certification

Career Cluster Certification serves to provide a consistent, transportable method of documenting learner achievement of a Career Cluster's validated academic and technical knowledge and skills. The system is based on valid and reliable assessments.

Operational Guidelines for Career Clusters Certification

This protocol includes minimum criteria/expectations career cluster designers need to apply in the selection/development of certification processes. Career clusters certification:

- Defines the purpose and scope of the certificate.
- Bases issue of the certificate on assessed learner proficiencies and competencies related to a Career Cluster's validated academic and technical knowledge and skills.
- Requires learner to meet the assessment benchmark identified.
- Informs the public concerning the knowledge and skills of the certificate holder.
- Indicates date of issue on the certificate.
- Issues certificate from the State (State Director of Career-Technical Education or appropriate designee) if the issuing organization is a secondary or post secondary education institution.
- Issues certificate from the CEO (or an appropriate designee) of an issuing professional organization/agency/institution/company.
- Requires issuing organization to maintain a database (state and/or national) of certificate holders based on the respective term of renewal.